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PATENT  
Docket No. 400742000200

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*April 5, 2002.*  
Date

*Hazel M. Raskowitz*  
Hazel M. Raskowitz

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the application of:

Spencer B. FARR et al.

Serial No.: 09/911,904

Filing Date: July 23, 2001

For: CANINE TOXICITY GENES

Examiner: To Be Assigned

Group Art Unit: 1642

PRELIMINARY AMENDMENT

U.S. Patent and Trademark Office  
Box Sequence  
P.O. Box 2327  
Arlington, VA 22202

Dear Sir:

Prior to examination on the merits, Applicants respectfully request entry of this  
Preliminary Amendment for the above-identified patent application.

**AMENDMENT****In the Specification**

On page 50, please amend the paragraph beginning [00316] with the following:

1. Combine in a microfuge tube:

1 ug total RNA/8ul DEPC treated water (Ambion #9922)

2ul (1 ug) Oligo d(T)22 -- T7 (Operon, 5'TCT AGT CGA CGG CCA GTG AAT TGT AAT  
ACG ACT CAC TAT AGG GCG 3') (SEQ ID NO: 385)

On page 50, the paragraph beginning [00322] has been amended as follows:

1ul Template Switching Primer (1ug/ul) (Operon, 5'-AAG CAG TGG TAT CAA CGC AGA  
GTA CGC GGG-3') (SEQ ID NO: 386)

Please substitute **TABLE 1** with the **TABLE 1** amended as follows:

**TABLE 1**

ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
C1	c-myc	X95367	503	caagaggacgaagaagaaa ttgatgtt (SEQ ID NO: 1)	cgcttccgcaacaagtccttt (SEQ ID NO: 2)
C2	c-erb B-2	AB00845 1	507	gtgtttgatggtgacttggaat g (SEQ ID NO: 3)	gtactccgggttctctgctgtag g (SEQ ID NO: 4)

ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
C3	Catalase	AB012918	506	gacaaaatgcttcagggtcgtc tt (SEQ ID NO: 5)	ccatgctgcataaagggtgga atc (SEQ ID NO: 6)
C4	p53	AF060514	506	acttttcgacacagtgtggtggt g (SEQ ID NO: 7)	cgagaggtagattgccccttct tt (SEQ ID NO: 8)
C5	Metallothionein 2	AB028042	330	gactccagccgccccttct (SEQ ID NO: 9)	aggaatgtagtagcaaacgg gtca (SEQ ID NO: 10)
C6	Interleukin-2	U28141	490	tcacagtaacctcaactcctgc ca (SEQ ID NO: 11)	gtcagtgttgagaagatgcttt gaca (SEQ ID NO: 12)
C7	Metallothionein 1	D84397	376	gctctgactctccctgtggtctg (SEQ ID NO: 13)	caaacgggaatgtagaaaa caagtca (SEQ ID NO: 14)
C8	Intercellular adhesion molecule-1	L31625	507	caagtcagagctggaatttccc at (SEQ ID NO: 15)	tggaagaactcccaactgg acat (SEQ ID NO: 16)
C9	Multidrug resistant protein-1	AF045016	510	ggcaaagagataaagcacct gaatg (SEQ ID NO: 17)	atagatgcctttctgagccagc ag (SEQ ID NO: 18)
C10	Beta-actin	AF021873	509	aagtattctgtgtgatcggag gc (SEQ ID NO: 19)	caactcaaggcaattaacca ccc (SEQ ID NO: 20)
C11	Tumor necrosis factor-alpha	S74068	510	caaattgcctccaactaatcag cc (SEQ ID NO: 21 )	acagggcaatgatcccaaag taga (SEQ ID NO: 22)

ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
C12	Nitric oxide synthase-1, inducible	AF077821	510	gtccttgcatcctcattggacct (SEQ ID NO: 23)	gctgttttgctgcaccatctttt (SEQ ID NO: 24)
C13	BRCA-1	U50709	499	ttctgggtattgcaggaggaa aa (SEQ ID NO: 25)	agtctgcagcagttctgggaat ct (SEQ ID NO: 26)
C14	Metallothionein-IV	AB028041	385	ctgtgacagcattggagcttctt g (SEQ ID NO: 27)	ttacatgagtgtcaccaccac ca (SEQ ID NO: 28)
C15	Tumor necrosis factor receptor	AF013955	507	ggctctgtgttggaatatacc cc (SEQ ID NO: 29)	cagttcacacaagagacgca ttca (SEQ ID NO: 30)
C16	c-kit	AF099030	504	gagacttggctgctagaaatat cctcc (SEQ ID NO: 31)	aattgatccgcacggaatgg (SEQ ID NO: 32)
C17	CD40 ligand	AF086711	508	ccaattgaagcctttctcaagg a (SEQ ID NO: 33)	gagtaagccaaaagacgtg aagcc (SEQ ID NO: 34)
C18	Cubilin	AF137068	508	tgaatgcacacatgacttcttg a (SEQ ID NO: 35)	tgatggatacactgcatactt gcg (SEQ ID NO: 36)
C19	Alkaline phosphatase	AF149417	499	cagatgtggagtatgagatgg acga (SEQ ID NO: 37)	agaccaaagatagagttgcc ccg (SEQ ID NO: 38)
C20	Pancreatic lipase	M35302	490	actcagagagcatcctcaacc ctg (SEQ ID NO: 39)	cagaagctgtgcactgttttct ct (SEQ ID NO: 40)

ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
C21	Apolipoprotein CIII	M17178	236	agccctggaggaagaggacc cct (SEQ ID NO: 41)	cagaggctggagttggttgg cc (SEQ ID NO: 42)
C22	Interleukin-4	AF054833	301	tcacctcccaactgattccaact ctgg (SEQ ID NO: 43)	gtctgtttgccatgctgctgag gttc (SEQ ID NO: 44)
C23	Tissue inhibitor of metalloproteinases-1	AF077817	492	cttgtgcaactcccaaactcgta tca (SEQ ID NO: 45)	gtgcatatccctggctctcttgg cag (SEQ ID NO: 46)
C24	Ubiquitin	AB032025	341	gcagattttgtaaagaccctga cggg (SEQ ID NO: 47)	acttcttctgcggcagttgaca gcac (SEQ ID NO: 48)
C25	Matrix metalloproteinase-2	AF095638	260	agcggtcagtgtaaggagggt gg (SEQ ID NO: 49)	tgtcccagggcacgatgaagt ca (SEQ ID NO: 50)
C26	Interleukin-6	U12234	493	cctgggtccagatgctaaagag caagggt (SEQ ID NO: 51)	acctgggtccgaaacatcga ggatatt (SEQ ID NO: 52)
C27	Vascular cell adhesion molecule 1 (VCAM-1)	U32086	517	tggaaattgaacccaaacaaa ggca (SEQ ID NO: 53)	ccgcatacctctaactggacct tgt (SEQ ID NO: 54)
C28	Phenol sulfotransferase	D29807	495	gctccccagacctgttgatc (SEQ ID NO: 55)	gcatcaaagcgctcattctgg gc (SEQ ID NO: 56)
C29	GRP94	U01153	503	aatcccagacatcccctgatca aagac (SEQ ID NO: 57)	cacttcttctgtgaccacaat ccca (SEQ ID NO: 58)

ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
C30	E-selectin	L23087	506	ttacacggttgctgtcactggatgaaa (SEQ ID NO: 59)	caccaggtgccccactattcatgttt (SEQ ID NO: 60)
C31	gastric lipase	Y13899	501	tgactatcatcagagcatgccccc (SEQ ID NO: 61)	tccatcctaggacccccgagatcatgac (SEQ ID NO: 62)
C32	HSP27	U19368	503	ggaccctttccgcgactgggtac (SEQ ID NO: 63)	tgatttctgccgactgggtggct (SEQ ID NO: 64)
C33	IL-10	U33843	472	cgggtccctgctggaggactttaaga (SEQ ID NO: 65)	ggtatgacgggggttctccaagcagtt (SEQ ID NO: 66)
C34	caveolin-1	U47060	470	tccgaggggcacctctacaccgt (SEQ ID NO: 67)	ttgccaacagcctcaaagaaacgg (SEQ ID NO: 68)
C35	H-ras, p21	U62092	193	accatccagctcatccagaacacacttc (SEQ ID NO: 69)	tggcaaatacacagagaaaacccctccc (SEQ ID NO: 70)
C36	rab2	M35521	514	agacaagagggttcagccagtgcatga (SEQ ID NO: 71)	gtgtgtggcattagtagcagcgtgctg (SEQ ID NO: 72)
C37	rab5	M35520	521	aagcctagtgtcgtttgtgaaagg (SEQ ID NO: 73)	ttggctgcgtgggttcagtaaggtcta (SEQ ID NO: 74)
C38	rab7	M35522	508	ccccaacacattcaaaaccctcgata (SEQ ID NO: 75)	tggtgtgtcagggtgaagtgttg (SEQ ID NO: 76)

ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
C39	APO CII	M17177	256	ctggttctgttctgtcctcctggt (SEQ ID NO: 77)	ggtcagtgaaaatccctgcgt aagtgc (SEQ ID NO: 78)
C40	endothelin-2	X57038	330	ctgtccgcctctgtccccctgtt (SEQ ID NO: 79)	ggagtagggacaacaccca gccg (SEQ ID NO: 80)
C41	FGFR2	AF21125 7	498	tgattgttcttctgccacaaaat gcc (SEQ ID NO: 81)	taaatacagaacgcacaaca cggcgac (SEQ ID NO: 82)
C42	leptin	AB02098 6	503	gccttaccctcaggaccttgc a (SEQ ID NO: 83)	gcatgaacaaaacagcctcc gcc (SEQ ID NO: 84)
C43	prosta- glandin D synthase	AB02698 8	510	agggtgccctgcagcccaactt c (SEQ ID NO: 85)	gggcggcggtcacctactgtt c (SEQ ID NO: 86)
C44	paraoxo- nase-2 (PON2)	L48515	472	caggactccacagctttcccc agata (SEQ ID NO: 87)	ggtgaaatattgatccatttgc tgca (SEQ ID NO: 88)
C45	beta- glucuroni- dase	AF01975 9	493	cgccgtatgtggacgtcatctgt gt (SEQ ID NO: 89)	agacagaggcttcagagggc gaacg (SEQ ID NO: 90)
C46	caveolin-2	AF03922 3	359	ctccaggtgggcttcgaggac gt (SEQ ID NO: 91)	tggggtccaagtgtcagtcgt g (SEQ ID NO: 92)
C47	matrix metallo- proteinase- 14	AF03202 5	350	ttcttcaaaggagacaagcact gggtg (SEQ ID NO: 93)	tagcctggctctaccttcagctt ctgg (SEQ ID NO: 94)

ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
C48	matrix metallo-proteinase-9	AB006421	471	gattctccaagggcaaggacgc (SEQ ID NO: 95)	tcacgtagcccacttcgtccac c (SEQ ID NO: 96)
C49	IL-8	U10308	498	gtggccacattgtgaaaactc agaaa (SEQ ID NO: 97)	gaccaaggcaaggttgaaa agggactc (SEQ ID NO: 98)
C50	keratinocyte growth factor	U80800	482	caatgacatgactccagagca aatggc (SEQ ID NO: 99)	ttgccataggaagaaagtgg gctgttt (SEQ ID NO: 100)
C51	decorin	U83141	505	gattgaaaatggagccttcag ggaat (SEQ ID NO: 101)	ataattccaagctggatggca gagcg (SEQ ID NO: 102)
C52	glucose-6-phosphatase	U91844	508	ctggggatctcagctgcaggat tttct (SEQ ID NO: 103)	atccttctctccttgccctctc ctc (SEQ ID NO: 104)
C53	TGFB-1	L34956	489	gacccttctgctcctcatggcc (SEQ ID NO: 105)	cttaaatacagcccggcgca gcg (SEQ ID NO: 106)
C54	ZAP36/annexin IV	D38223	488	gacacgtccttcattgtccaga gggtg (SEQ ID NO: 107)	ccagatgtgcacccttgatga aggag (SEQ ID NO: 108)
C55	N-ras	U62093	224	gttgagcaggtggtgttgga aaag (SEQ ID NO: 109)	gcaaatacacagaggaagc cttcgcc (SEQ ID NO: 110)
C56	K-ras	U62094	228	gtagtggagctggtggcgtag gcaa (SEQ ID NO: 111)	ggcaaatacacaagaaag ccctccc (SEQ ID NO: 112)



ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
C57	p38 MAPK	AF003597	506	ctggtagcccatcttatgggagcagat (SEQ ID NO: 113)	tttgcaaagttcatcttcggcatctgg (SEQ ID NO: 114)

Please substitute **TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY**, with **TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY** amended as follows:

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY			
ID#	Gene Name	Accession Number	Target Sequence
C1	c-myc	X95367	caagaggacgaagaagaaattgatgtgtttctgtggaaaaaaggcag gcccctgcaaaaagggtccgaatcggggtcccctctgctggaggccac agcaaacctctcacagcccactggtcctaagagatgcatgtgtcca cccatcagcacaactacgcggcacccccctccaccaggaaggactat ccgcgcgccaagaggcgaggttgacagtggtagagtctgaaac agatcagcaacaaccgcaaatgtgccagcccagggtcttcggacacg gaggagaatgacaagaggcgaacacacaacgtcttgagcgccag aggaggaacgagctgaaacggagctctttgccctgcgtgatcagatc ccggagttggaaaacaatgaaaaggccccaaggtagtgatccttaa aaaagccaccgcgtacatcctgtccgtccaagccgaggagcaaaag ctccttccgaaaaggactgttgcggaagcg (SEQ ID NO: 115)
C2	c-erb B-2	AB008451	gtgttgatggtgactgggaatgggggcagccaaggggctgcagagc cttccctcacaggaccccagccctctccagcgtacagtgaggaccct acggtacccttgccccctgagactgatgtaagggtgccccctgacct gcagccccagcctgaatatgtgaaccagccagaagttggccgcag cccccttgccctagaaggccctttgcctcctcccgaccggctggtgc cactctggaaaggccaagactctgtccccaagactctctccctggc aagaatggggtgtcaaagacgttttgctttgggagtgctgtggagaat ccggagtacctggcaccgcggggcagagctgcccctcagccccacc ctcctccagcctcagcccagccttgacaacctgtattactgggaccag gatccatcagagcggggctctccaccagcaccttgaaggggaccct acagcagagaaccgggagtag (SEQ ID NO: 116)

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
C3	Catalase	AB012918	gacaaaatgcttcagggtcgtcttttgcctatcctgacactaccgccac cgctgggaccaactatctcagatacctgtgaactgtcctttccgggct cgagtggccaactaccaacgggatggcccatgtgcatgctcgacaat cagggtgtgtctcaaattactacccaatagcttttagtgcctgaaca acagcgttgtcctagagcatagcagccaatgttcgccagatgtgcag cgcttcaacagtccaatgaagataatgtcactcagggtcggacctct atttgaagggtacttgggaaggaggaggaaacgcctgtgcgagaac attgtggccatctgaaggacgcacaactttcatccagaagaaagcg gtcaagaacttcagtgtatgtccaccctgactacggggcccgattcagg ctcttttgacaaatacaatgtcgagaaacctaagaacgcgattcacac ctttatgcagcatgg (SEQ ID NO: 117)
C4	p53	AF060514	acttttcgacacagtgtggtggtgccttatgagccaccggagggttgctct gactataccaccatccactacaactacatgtgaacagttctgcatggg aggcataaaccggcgcccatcctcactatcatcacctggaagactc cagtggaaacgtgctgggacgcaacagctttgaggtagcgtttgtgcc tgtcccgaggagaccgcccggactgaggaggagaattccacaaga aggggggagccttgcctgagccacccccgggagtagcaagcgagc actgcctcccagcaccagctcctctccccgcaaaagaagaagccac tagatggagaatatattcaccttcagatccgtgggctgaacgctatgag atgttcaggaaatcgaatgaagccttgagctgaaggatgccagagt ggaaaggagccagggggaagcagggtcactccagccacctgaag gcaaaagaaggggcaatctacctctg (SEQ ID NO: 118)
C5	Metallothionein 2	AB028042	gactccagccgccccttctcgccatggatcccaactgctcctgcgccgc ggggggctcctgcacgtgcgcggctcctgcaaatgcaaagagtga gatgcacctcctgcaagaagagctgctgctcctgctgccccgtgggctg tgccaagtgtgccagggtgcatctgcaagggcgcatcggacaagt gcagctgctgtgcctgatgtgggggagagcctattcctgatgaaataga gcgacgtgtacaaacctacagttgtggggggttttgggtcttttgtttg ggtccaactctgaccggttgctactacattcct (SEQ ID NO: 119)
C6	Interleukin-2	U28141	tcacagtaacctcaactcctgccacaatgtacaaaatgaactctgtctt gcatcgactgacgtgtactgtcgcaaacagtgcacctattactcaa gctctacaaaggaaacagagcaacagatggagcaattactgctggatt tacagttgctttgaatggagtaataattatgagaacccccaaacttcca ggatgctcacatttaagtttacacgccaagaaggccacagaatttac acacctcaatgtctagcagaagaactcaaaaacctggaggaagtgtct aggtttacctcaaagcaaaaacgttcacttgacagaccaaggaatt aatcagcaatatgaatgaacacttctgaaactaaagggatctgaaac aagttacaactgtgaatatgatgacgagacagcaaccattacagaattt

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
			ctgaacaaatggattacctttgtcaaagcatcttcaacactgac (SEQ ID NO: 120)
C7	Metallothionein 1	D84397	gctctgactctccctgtggtctgcctgggacctccgtcctgcctgcctc gcctgcctgcctgcctgggctcgagatggaccccgactgctcctgc tccaccggtggctcctgcacgtgcgtggctcctgcaaagtcaaggagt gcaaatgcacctcctgcaagaagagttgctgctcctgctgccccgtggg ctgtgccaaagtgtgccagggtgcatctgcaaggggtgcgtcggaaca gtgcagctgctgtgcctgatgtgtgagaacacctgttctgatgtatatag agcaagcaacatgtacaaacctgcagtttaagcatttttcatatcact ctgactgttttctacattcccgttg (SEQ ID NO: 121)
C8	Intercellular adhesion molecule-1	L31625	caagtcagagctggaatttccattccattggctaagctgcttctccag aggaggactggcaatggtgatacagtttagttggcgacatgccaggg acaaccactgagccccatactctccccgtcactgacactgacctctg ttagccgtctctctcccatcagcatctctgtagtgcacgatgacatcg ctgcatgcctgaacacgaatgaccactcactggcagctaaactgtgga gtcccatgaaactgcccaaccctatgtgtccctgcctggctgtttccat ctcgttgaccatacaaggacacagcactctggcagcccaattcct gcagagacgagggccctgcaggcagttggcagaagaggccggcga ggattcctgtcccagctccggaagcttctctttagtaataaagcttgc gtggcgctgtctgtgtgagtgaggagggtgtcatgtccagttggg agttctttcca (SEQ ID NO: 122)
C9	Multidrug resistant protein-1	AF045016	ggcaaagagataaagcacctgaatgtccagtggtccgagcacacct gggcatcgtgtctcaggagcccatcctgttgactgcagcattgccgaga acattgcctatggagacaacagccgggtcgatcacatgaagagattat gcaggcagccaaggaggccaacatacaccacttcatcgagacactc cctgagaaatacaacaccagagtaggagacaaaggaaccagctct ctggtggccagaaacagcgcatgcatagctcgctctgttagaca gcctcatatttgcctttgatgaagctacatcagctctggatacagaaagt gaaaagggtgtccaagaagccctggacaaagccagagaaggccgc acctgcattgtgatcgccaccgctgtccaccatccagaatgcagatt aatagtggtgttcagaatggcaaagtcaaggagcatggcacacatca acagctgctggctcagaaaggcatctat (SEQ ID NO: 123)

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
C10	Beta-actin	AF021873	<p>aagtattctgtgtggatcggaggctccatcctggcctcgctgtccaccttc  cagcagatgtggatcagcaagcaggagtacgacgagtcggggccct  ccatcgtccatcgcaaagtcttctagatcgactcgagcagatcgtag  catttctgcatgagtgaattccgaagtataaattggccctggcaaattg  ctagcctcatgaaactggaataagcgcttgaaaagaaattgtccttga  agctngtatctgatatacagcantggattgtagaactgtgtctgatcttg  acnttgatccaagttaactgttcccttggtatattttaataccgcctattcc  aggattctctagaggctggcaagagtctgaaccagttgtcatttctgtcttg  ccggtctaacagggttggaaggctccgagccttaggacccacttctctgt  cttacccaatgtttctctgccagaacaccgtgggtggtaattgccttgaa  gttg</p> <p>(SEQ ID NO: 124)</p>
C11	Tumor necrosis factor- alpha	S74068	<p>caaattgcctccaactaatcagccctctgtcccagacagtc aaatcatct  tctgaaccccaagt gacaagccagtagctcatgtgtagcaaacc  gaagctgaggggcagctccagtggtgagccgacgtgccaatgacct  cctggccaatgacgtggagctgacagacaaccagctgatagtccgtc  agatgggtgtacctcgatagctcccaggctccttcaagggccaaggg  tgccctccacccatgtgtcctcaccacacccatcagccgcttcgccgt  ctcctaccagacaaagggtcaacctactctctgccatcaagagcccttg  caaagggagacccagaggggaccgaggccaagccctggtacga  gcccactacctgggaggggtcttccaactggagaagggtgatcgact  cagcgctgagatcaatctgcctaactatctggacttgccgagctgggc  agggtactttgggatcattgccctgt</p> <p>(SEQ ID NO: 125)</p>
C12	Nitric oxide synthase-1, inducible	AF077821	<p>gtccttgcatcctcattggacctggcacaggcatcgccccctccgcagtt  tctggcagcagcggtccatgacatcaagcacaagggtccggggc  agccgcatgacctggtgtttgggtgcccggcccagatgaggaccac  ctgtatcgggaggagatgttgagatggcccagagtgggtgtgctcat  gaggtgcacacagcctattctgcctgctggccagcccaaggctatg  ttcaagacatcctgcggcagcagctggccagccaggtgtccgcacgc  tccatgaggagcagggccaccttatgtctgtgggagtgtcgatggcc  cgggatgtggccataccctgaagcacctgggtggctccaagctgagc  ctgagtgaagagcaagttgaggactattttccagcttaagagccaga  agcgctatcatgaagatatcttgggtgctgtgttccctatgagggtgaaa  aagatgggtcagcaaaacagc</p> <p>(SEQ ID NO: 126)</p>
C13	BRCA1	U50709	<p>tttctgggtattgcaggaggaaaatgggtagtttagctatttctgggtaacc  cagtctattaaagaaagaaagatactagatgagcatgatttgaagtca  gaggagatgttgtaattgaagaaatcaccaggggtccgaagcgagc  aagagaatcccaggacagagaatcccaagacagaaagatcttcagg  ggcctagaaatctgtgctatggacctttaccaacatgccacagatca</p>

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY			
ID#	Gene Name	Accession Number	Target Sequence
			attagagtggatggtgcacctctgtggggcttctgtggtgaaggagccttc gttattcaccctcagcaagggcactcatccagtggtagctgtcagccg gacgcctggacagaggacagtggcttccatgcatgggcagatgtgt gaggcacctgtgtgacccgagagtgggtactggacagtgtagccctc taccagtgcaggagctggacacctacctgatcccgagattccaga actgctgcagact (SEQ ID NO: 127)
C14	Metallothionein-IV	AB028041	ctgtgacagcattggagcttctggacacctggacatggacccccggg aatgcacctgcatgtctggaggaatctgtatctgtggagacaattgcaaa tgtacaacctgcaactgtaaaacatgtcgaaaaagctgtgtcctgtgtg cccccggctgtgccaagtgtgccagggtgcatctgcaaggag gctcggacaagtgcagctgctgtgcctgaaccgcatccgtggtgtgtgg gctggcggggcgggggtgtggtatgccacagccccgaaatgtctgt acagtgcattagttgagaaactgaaattattgtaccataggttatgctttta tatattgtcagaggtggtggtgtgacactcatgtaaa (SEQ ID NO: 128)
C15	Tumor necrosis factor receptor	AF013955	ggctctgtgttggaatatataccccataagcggtactgcactgttctcac ccccggaacaggggtgaagagagctattctgtgtcccagggaataat attcaccctcaagacgattccattgtgtacgaagtgcacaaaggga cctacctgtacaatgactgtccaggcccagggtggacacagactgca gggaatgtgaaaacggaactttacagctcagagaaccacctcagac aatgtcttagctgtccaaatgccgaaaagaaatgaaccaggtggaga ttctcctgtactgtgtaccgggacacgggtgtgtggtgcaggaagaac cagtaccggtttattggagtgaaccctttccagtgcataactgcagc ctctgcctcaatggcacgggtgcagatctcctgccaagagaagcagaac accatatgcacctgccacgcggttcttctaagagagcatgaatgcg tctctgtgtgaactg (SEQ ID NO: 129)
C16	c-kit	AF099030	gagactggctgctagaaatatcctccttactcatggtcgaatcacaaag attgtgatttggctagccagagacatcaagaatgattctaattatgtggt caaaggaaacgctcggctacctgtgaagtggatggccctgagagca tttcaactgtgtgtacacatttgaagtgtgtcgtcctatgggattttct gtgggagctcttctttaggaagcagccccctaccctgggatgccagtgc attcaaagttctacaagatgatcaagggaaggcttccgatgtcagccc tgagcatgcacctgctgaaatgtatgacatcatgaagcgtgtgtggat gctgatccccgtgaaaaggccgacgtccaagcagatcgtgcagctaatt gagaagcagatttcagatagaccaatcatattattccaacctgcga actgcagcccaaccagagcgccccgtggtggaccattccgtgcgg atcaatt (SEQ ID NO: 130)

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY			
ID#	Gene Name	Accession Number	Target Sequence
C17	CD40 ligand	AF086711	<p>ccaatttgaagccttctcaaggagataatgctaaacaacgaaatgaag  aaagaagaaaacattgcaatgcaaaaagggtgatcaggatcctcgaat  tgcagcccatgtcataagtgaggctagtagtaaccagcgctcgttctgc  ggtggcgccaaaagggtactacaccataagcagcaacctggtgag  cctcgagaatgggaaacagttggccgtgaaaagacaaggactctatta  cgtctatgcccaagtcacctctgctcaatcgggcagcttcgagtcgaag  ctccgtctgctgccagcctatgcctccattcccagtggaacggagag  agtcttactccgcgcgcgagctccgcggctcgtccaaacctgcggc  caacagtcctccacttgggaggagatattgaattgcatccagggtctc  ggtgttctgaacgtgactgatccaagccaagtgagccacgggaccg  gcttcacgtctttggcttactc</p> <p>(SEQ ID NO: 131)</p>
C18	Cubilin	AF137068	<p>tgaatgcacacatgacttcttgagggaagaaatggaagtgatagcagt  tcaccattatttggcacatactgtggaactctgttgccagatcctatcttct  cgaaacaacaaactatacctacggtttaagaccgatagcgcaactcc  aatcgtgggtatgaaattgtctggacctcatcacctctggtctgtgtgga  acctttatggagacagtggttctcaccagccccggctatccggcac  ttacccaacaacactgactgtgaatgggcatcatcgctcctgtgga  agacctgtcaccgtcacctttactttatcagcatcgatgatccgggagac  tgtgtccagaactatctcactctacgatggaccggatgctaattctccat  ccttggaccatactgtgggcagacaccaacatagctcccttgtggcc  tcttcacatcgtgtcttcataaaatttcacgcagagtatgcagtgtatccat  ca</p> <p>(SEQ ID NO: 132)</p>
C19	Alkaline phosphatase	AF149417	<p>cagatgtggagtatgagatggacgagaagtccaggggacagaggct  ggatggcctgaacctcatcgacatctggaagaacttcaaacggagac  acaagcactctactacgtctggaaccgcacggaactcctggccctcg  accctacaccggtgactacctcttgggtctcttgagccgggggacatg  cagtacgagctgaacaggaacaacgtgactgacctgtcactctcca  gatggtggaaatagccatcaagattctgagcaagaacccagaggctt  cttctgtgtggaaggaggcaggattgaccacgggcatcacgaggg  caaggccaagcaggcgctgcacgaggcagtgagatggaccgggc  aattgggaaggcaggcgctcatgacctccttgaagacacgctgaccgt  cgtcactgaggaccactcccacgtcttcaccttggcgggtacacccc  cggggcaactctatcttgggtct</p> <p>(SEQ ID NO: 133)</p>

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY			
ID#	Gene Name	Accession Number	Target Sequence
C20	Pancreatic lipase	M35302	actcagagagcatcctcaaccctgatggattgcttctaccctgtgctt cctacagggccttgaatctaacaagtgctccccctgccagatcaagg gtgccacagatgggtcactatgctgataaattgctgcaagacaagtg atgagacacagaaatacttctgaacaccggagattccagcaatttgc tcgctggagatacggggttctataacattgtctgggaaaagagccactg gtcaggctaaagttgcttgggtgaagtaagggaataactcatcaattca atatctcaaggggattctcaaaccaggctctactcattccaatgagttg atgcaaagctgatgttgaacaattgagaaagtcagtttcttgggaata acaacgtggtaaaccaaccttccaaagtggtgagccaagatca ccgtgcaaaaggagaggagaaaacagtgcacagcttctg  (SEQ ID NO: 134)
C21	Apolipoprotein CIII	M17178	agccctggaggaagaggacccctccctcctggccttatgcagggtta catgcagcacgccaccaagacggcccaggacacgctgaccagcggt caggagtccagggtggcgagcggggccaggggctggatgaccgata gcttcagttccctgaaagactactgcagcacgtttaaagggaagttcact ggcagagctggtcagcctctgaggccaaaccaactccagcctctg  (SEQ ID NO: 135)
C22	Interleukin-4	AF054833	tcacctcccaactgattccaactctggtctgcttactagcactcaccagca ccttgtccacggacataacttcaatattactattaaagagatcatcaaaa tgttgaacatcctcacagcgagaaacgactcgtgcattggagctgactgt caaggagcttctcactgctcgaagaacacaagcgataaggaaatctt ctgcagagctgctactgtactgctggcagatctatacacacaactgtcc aacagatatctcagaggactctacaggaacctcagcagcatggcaaa caagac  (SEQ ID NO: 136)
C23	Tissue inhibitor of metalloproteinases-1	AF077817	ctgtgcaactcccaaatcgatcatcagggccaaagttcggtgggaccgca gaagtcaaccagaccgacttaaacggcggttatgagatcaagatgac caagatgttcaagggttcagcgccttggggaatgcctcggacatccgc ttcgtcgacacccccgcctggaaagcgtctgcggatactgacagggt ccagaaaccgcagcgaggagtttctggtcgcggaaacctgcgggac ggacactgcagatcaaacctgcagtttctggtggccccgtggagcagc ctgagtaccgctcagcgcggggcttcaccaagacctatgctgctggct gtgaggggtgcacagtggttacctgttcatccatcccctgcaaaactgcag agtgacactcactgctgtggacggaccacttctcacaggctctgaca agggttccagagccgccacctggcctgctccaagagagccaggg atatgcac  (SEQ ID NO: 137)

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
C24	Ubiquitin	AB032025	gcagattttgtaaagaccctgacgggcaaaactatcaccccttgaggtc gagcccagtgacaccattgaaaatgtcaaagccaaaatccaagaca aggaggggcatccgcctgaccagcagcgtctgattttgctggcgaac agctagaagatggccgaactctgtcagactacaatatccagaagagt ccaccttgacttggtgcttcgctgcgaggtggcatcattgagcctcac tccgccagctggcccagaaatacaactgcgacaagatgatctgccgc aagtgttatgtctgcctgcacccccgtctgtcaactgccgcaagaaga agt  (SEQ ID NO: 138)
C25	Matrix metalloproteinase-2	AF095638	agcggtcagtgtaaggaggtggactctgggaatgacatctacggca accccatcaagcggattcagatgagatcaagcagataaagatgttca aaggaccagacaaggacatagatttatcacaggctccttctccgc cgtatgctgggtctccctggacatcgaggaaagaaggagatctcatt gcgggaaaggccgaggggaacggcaagatgcacatcaccccttggtg actcatcgtgcctgggaca  (SEQ ID NO: 139)
C26	Interleukin-6	U12234	cctggtccagatgctaaagagcaaggtaaagaatcaggatgaagtga ccactcctgaccaaccacagacgccagcctgcaggctatctgcagt cgcaggatgagtgctgaagcacacaacaattcacctcatctgcgga gtctggaggatttctgcagttcagttcagggctgttcggataatgtagc ctgggcataagattgctgtagttcatgggcattccttctccagtcagaa acctgtgcagtgggcacaaaactatgtgttctctgtgaggaaactaaa gtatgagcgttaggacactatttaatttttaattattgatatttaaatg tgatatggagtaattatataagtaataagatatttatattttatgaagtgc actgaaatatttatgtattcatttgaaaaagtaaacgtaaaatgctatgc ggctgaatatcctcagatgttcggagccaggt  (SEQ ID NO: 140)
C27	Vascular cell adhesion molecule 1 (VCAM-1)	U32086	tggaatttgaacccaaacaaaggcagagtacacagacactttatgttaa tgttgccccagggtatacaaccgtcgtggtcagccctcctccatcgtgg aggaaggtagtcctgtgaacatgacctgctctagcagtgccctccagc tccgaacatcctgtggagcaggcggctaagtaatgggcgctgcagtc tcttctgaggatccaatttcacctaactctgcacaaaatggaagattct ggattttatgtgtgaaggattaaccaggctggaataagcagaaaaag aagtagaattaattatccaagttgctcgaagacatacagcttatagctt ttccttctgagagtgtcaaggaaggagacactgtcattatcctgtacat gtggaaatgttccaaaaactggataatcctgaagaaaaaagcagag acgggagacacagtgctaaagtccagagatgggtcatataccatcca caaggctcagttagaggatgcggg  (SEQ ID NO: 141)



TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY			
ID#	Gene Name	Accession Number	Target Sequence
C28	Phenol sulfotransferase	D29807	<p>gctccccagacctgttgatcagaagggtcaagggtgtctacgtcgcc cgcaacgcaaaagatgtagctgtctctattaccacttctaccgcatggc caagggtgcacctgacctgacacctgggacagcttctggagaagt catggctgggaagtgtctatgggtctggtatcagcatgtgcaggaat ggtgggagctgagtcacactcacctgttctctacctctctatgaggaca tgaaagagaaccccaaaaggagattcagaagatcctgaagttgtg ggcgctccctgccagaggagactgtggatctcattgtccagcacacgt cttcaaggagatgaagaacaactccatggctaactacaccaccttatct cctgacatcatggaccacagcatttctgccttcatgaggaaaggcatctc gggggactggaagaccaccttactgtggcccagaatgagcgcttga tgc</p> <p>(SEQ ID NO: 142)</p>
C29	GRP94	U01153	<p>aatcccagacatcccctgatcaaagacatgctgcgacgagttaagga agatgaagatgacaaaacgggtatcggtatctgtgtgtgtttgttgagac agcaacgtgagatcaggctatctgtaccagacactaaagcatatgg agatcgaatagaaagaatgcttcgcctcagtttaaacattgacctgatg caaagggtggaagaagaaccagaagaagaacccgaagagacaacc gaggacaccacagaagacacagagcaggacgatgaagaagaat ggatgcaggaacagacgacgaagaacaagaacagtaaaagaat ctacagctgaaaaagatgaattataaattatactctcaccatttggaacct gtgtggagaggggaatgtgaaatttaagtcatttcttcgagagagactgtt ttgatgtccccgcagcccccttctccccctgcactgtaaaaatgttgggat tgtgggtcacagaaagaagtg</p> <p>(SEQ ID NO: 143)</p>
C30	E-selectin	L23087	<p>ttacacggtgtgtcactggatgaaataattgccaaggagtttagggga aacaacttggtcaaagtattctatcaccaacatgcaaaaaaatattttaa atgccacagcgagtagatggggaaatcctgcttaatactttgtgcaa ggattgctaaacacagtcctaataccctttacccctgtgggattcagtgcat tttaaagtgttcttagagattttaaagtgttctttattgtcattggctaaagtac aatttccctaattcttaattcagtgtaagtgttagagactttaaaatatatg catgttagagctatgatagggtaaaagttacttatcagggatctttgttatg aagggaacttaattgtatctgtagtaaatcattttaaaaggggcaaat gctgtcccagttattacgtgaatcagtgtaaatgtgtgaatgttttactata gttgcttttaaaaacatgaatagtggggcacctggggtg</p> <p>(SEQ ID NO: 144)</p>
C31	gastric lipase	Y13899	<p>tgcactatcatcagagcatgcctccctactacaacctgacagacatgca tgtgccaatcgagtggtgaacgggtggaacgactgtgtggcgacct cacgatgttgacctttgtcttccaagctcccaatctcattaccacagga agattctccttacaatcacttggaattatctggccatggatgcccctca agcggtttacaatgaaattgttccatgatgggaacagataataagtagt ctagatttaaggaaatttctttattgttccaaaatacgttctctcacacg</p>

ID#	Gene Name	Accession Number	Target Sequence
			<p>tggttttctatcatgtttgagacacggtgattgtcccatggttttgatttcaga aatgtgttagcatcaacaatcttccattgtaattttgaatttaaaatgattt ttaaattggggcatctgggtggctcagtcggctaagtcgtctgccttcgg cttaagcatgatctcgggggtcctagga</p> <p>(SEQ ID NO: 145)</p>
C32	HSP27	U19368	<p>ggacccttccgcgactggtaccggcccacagccgctcttcgacca ggccttcgggctgccccggctgccggaggagtgggcgagtggttcgg ccacagcggctggccgggctacgtgcgccgatccccccgcggctg agggccccgcggcgccgcggcgccgcggcgccgcctacagcc gcgcgtcagccggcagctcagcagcggcggtgcggagatccggca gacggccgaccgctggcggtgtccctggacgtcaaccacttcgcccc cgaggagctgacggtcaagacgaaggacggcggtggtggagataact ggcaagcacgaagagaggcaggatgagcatggctacatctccgcc gcctcactccaaatacacccctgccccctgggtggtatcctaccctggtc tctcctccctgtccctgagggcactctcacggtggaggctcccatgcc caagccagccacccagtcggcagaaatca</p> <p>(SEQ ID NO: 146)</p>
C33	IL-10	U33843	<p>cggttccctgctggaggactttaagagttacctgggtgccaagccctgt cggagatgatccagtttacttgaggaggatgatccccgggctgagaa ccacgaccagacatcaagaaccacgtgaactccctgggagagaag ctcaagaccctcaggctgagactgaggctgcgacgctgtcaccgatttc ttccctgtgagaataagagcaaggcggtggagcagggtgaagagcgc attagtaagctccaggagaaagggtgtctacaaagccatgagtgagtt gacatctcatcaactacatagaaacctacatgacaatgaggatgaaa atctgaaacgtgtgagagaacaaaacaccaggatggcaactctctc gactctaggacatgaattggagatctgcaaaataccatcccagagatga ggagagccgaccaactgctggagaaccccgatacc</p> <p>(SEQ ID NO: 147)</p>
C34	caveolin-1	U47060	<p>tccgaggggcacctctacaccgttcccatccgggagcagggcaacat ctacaagcccaacaacaaggccatggcggaggagatgagcgagaa gcaggtgtacgacgcgcacaccaaggaaatcgacctgttaaccgc gacccaagcatctcaacgacgacgtggtcaagattgatttgaagatg tgattgcagaaccagaaggaacacacagttttagtgcatctggaagg ccagctcaccacctcactgtgacaaaatactggtttaccgctgtctgc tgccctctttggcatcccaatggcactcatatggggcatttactttgccattc tttcttctgcacatctgggcagttgtgccgtgcattaagagttcctgattg agattcagtgcatcagccgtgtctattccatctacgtccacacctctgtga cccgttcttgaggctgtggcaa</p> <p>(SEQ ID NO: 148)</p>

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY			
ID#	Gene Name	Accession Number	Target Sequence
C35	H-ras, p21	U62092	accatccagctcatccagaaccacttcgtggtgatgagtagcagccccacc atcgaggactcctatcggaagcaagtggcattgacggggagacgtgc ctgctggacatcctggacacagcggggccaggaggagtagacgcgccat gcgggaccagtacatgcgcacgggggagggtcttctgtgtatttgc a (SEQ ID NO: 149)
C36	rab2	M35521	agacaagagggttcagccagtgcatgacctgactatcgggtgtagagttg gtgctcgaatgataactattgatggaaacagataaaaacttcagatatg ggatacggcagggaagagtccttctggtccatcacaaaggatattac agagggtgcagcaggggttactagtgtatgatattacaaggagagata cattcaaccacttgacaacctggtagaagatgcccgccagcattccaa ttccaacatggtcattatgcttattggaaataaaagtatttagaatcaag aagagaagtaaaaaaagaagaagggtgaagctttgcacgagaacat ggacttatcttcatggaaactctgctaagactgctccaatgtagaagag gcattattaatacagcaaaagaaatttatgagaaaatccaagaagga gtcttgacattaataatgaggcaaacggcattaaaattggccctcagca cgctgtactaatgccacacac (SEQ ID NO: 150)
C37	rab5	M35520	aagcctagtgtctcgtttgtgaagggccaatttcattgaattcaagagag taccataggggctgcttttaacccaaactgtgtgtcttgatgatacaac agtaaaagttgaaatatgggatacagctgggtcaagaacgataccatag cttagcaccaatgtactacagaggagcacaagcagccatagtgtatat gatcacaaatgaggagtccttgcagagccaaaaactgggttaaa gaacttcagaggcaagccagtcctaactgtaatagctttatcaggaa acaaggctgatcttgcaaataaaagagctgtcgatttcagggaagcac agtctatgcagatgacaacagttattattcatggagacatcagctaaa acatcgatgaacgtaaatgaaatattcatggcaatagctaaaaagttgc caaagaacgaaccacagaatccaggagcaaatctgccagaggaa gaggagtagaccttactgaaccacgcagccaa (SEQ ID NO: 151)
C38	rab7	M35522	ccccaacacattcaaaaacctcgatagctggagagatgagtttctc caggccagtcctcggaacagacaagtggccacaaagcgggcaca ggcttggtgctacagcaaaaacaacattccctacttcgagaccagtg caaggaggccatcaatgtggagcaggcgtccagacgattgcaagga atgcacttaaacaggaaacagaggtggagctgtacaatgaattccctg aacctcatcaactggacaagaacgaccggggccaagacctcagcgg aaagctgcagttgtgaaggggcagtgagagcagagcacagagtcct tcacaaacaaagaacacacttaggcctccaacacgagcccccttctc

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
			tcttcaaaacaaaacataaagtcattctcgaatccagctgccaaaaga ccctaccaaacacttcacccctgacacacaca (SEQ ID NO: 152)
C39	APO CII	M17177	ctgggtctgttgcctcctggtattgggattgaggtccagggggccc atgagtcacagcaagatgaaaccaccagctccgcctgtcaccag atgcaggaatcactctacagtactggggcacagccagatcggtgcc gaggacctgtacaagaaggcatacccaactaccatggatgagaaaat cagggaacatatacagcaaaagcacagcagctgtgagcacttacgca gggattttcactgacc (SEQ ID NO: 153)
C40	endothelin-2	X57038	ctgtccgcctctgtccccctgttgcgacgcagggcaagggccaggtggc cgctgccccggagcatccagcacccctagcccgggcccgaggctccc acctgcggcctcggcggtgtcctgcagctcctggctcgacaaggagt cgctacttctgccacctggacatcatctgggtgaacactccgggtgag ctcccgggggacccaggcggggtgctagaggcggggcaggggg tggggaacctgtagctagcacagctctccctgggcctccagacggatc gctgagctgacatgaagagcgggtgggtgtgtccctactcc (SEQ ID NO: 154)
C41	FGFR2	AF211257	tgattgttctctgccacaaaatgccagtagtaacaaaacccatcgata ggaaagtattttgttctgtgcagctctgtcattgggcccattggagcgcg gaactggacttccaagacaaaatggtagcagctgtcttcttaaaaagatg cctaatccattcctcgagggtggaccttagttgagatgatagcagactgt actccccccggcagctggcctctgccctgagttgcacgttaacagatt agcctgtattctctcagtggtttgataatggctccagattcattggcgtt agggaaagcctttagaatctcacgtgtcatcgctgaaatgaaacactg agttgtctgtgatggtttggagatactccatcttttaaggggttctctg tctaattctggcaggacctcaccaaaagatcgggcctcgtagcaacgtc agacacgatgtcgccgtgtgtgctgtctgtatta (SEQ ID NO: 155)
C42	leptin	AB020986	gcctaccctcagggaacctgcattccagatggtaaaaatgccacacac cagtatgcaaaggctggcctcgaccatggcaactgagcagctgaac cagcgactcctcagcaggcggaatgctgaactgagaatgtcagtg ctcagggggccacagggtacccctgctccacttcgtagcattttgcttt cagggcacggcagcatttattactgtgtgacacatccctgaaagcag cagcatagctgacaatttaaaaataagaactaagaacatacctaagac cataacggcagacaagtagcaggggcgagactagagttcaggacct ctgactcccagagtgtccggggagccaggtaatgtccctggagggtgc aaataggggtgggcaggggagaccagaagtgttacaggagagagag gacttgagggtgattttgaggagggtgaggatgtgaattgcctgaatgg

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
			cggaggctgtttgtcatgc (SEQ ID NO: 156)
C43	prostaglandin D synthase	AB026988	aggtgtccctgcagcccaactccaacaggataagttcctggggcgctg gttcacctcgggctcgctccaactcgagctggtccgggagaagaa gaacgtgtgtccatgtgtatgtcagtggtggcccgaccgcagacgg aggcctcaacctcacctccacctcctcaggaagaccagtgtagac tcgaacctgtctctacggcggcggggaacccgggctgctacagcta cacgagtccccactggggcagtagccacgacgtgtgggtggttagcca ccaactacgaggagtagcgcttctacaccgcaggcagcaaaaggc ctcgccaggactccacatggccactctctacagccgacccagacc ccaaaggccgagataaaggagaaaattcagcacctttgccaagacc agggttcacagaggatgccattgtctcctgccacagactgataaatg catggaggagaacaagtaggtgaccgccc (SEQ ID NO: 157)
C44	paraoxonase2 (PON2)	L48515	caggactccacagctttcccagataagcctggaggatattaatgat ggatctaaaaaaggaaaaccgagggcactggaattaagaatcagc cgtgggttcaattggctcgttcaatccacatggtatcagcacctcatag acagcgacgacacagttatctcttgtgtaaacatccagaattcaag aatacagtggaatttttaattgaagaagaagaaaattcttctgcat ctaaaaacaatcaaactgaacttctccaagtgtgaatgatcatagc tgttgaccagcacatttctatgcccaatgaccatttctctgacatt tctaaagtatttgaaacatacttgaacttacactgggcaaattgtgtta ctacagtccagatgaagttaaagtggtagcagaagggttgatgcagc aatgggatcaatatctcacc (SEQ ID NO: 158)
C45	beta-glucuronidase	AF019759	cgccgtatgtggacgtcatctgtgtcaacagttactactcttggtacag actatgggcacatggagtgattcagctgcagctggccaccgagttga gaactggtataggacctaccagaaccaataatccagagcgagtacg gggcagagacaattgcaggctccaccaggatccacctctgatgttcag tgaggagtaccagaaaggctgtctcgagcagtagtacttggtctggat cagaacgcaaagaatatgtggttgagagctcatctggaatttgctg attttatgactgaccagtcaccacagagagcagtagggaacagaaag ggcatcttactcgccagagacaacccaaagcggcgccctcctttgc gagagaggtagtggaaactgccaatgaaaccgggcaccaccggtc cgcgccaagtccagtggttgaaaacagcccgttcgccctctgaag cctctgtct (SEQ ID NO: 159)

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
C46	caveolin-2	AF039223	ctccaggtgggcttcgaggacgtgatcgcgacgcccgtgtctacgcact ccttgacaaagtgtggatttcagccatgccctgttgaggcagcaagt acgtgatctacaagttcctgacgttgctcctggcgatgccatggccttcg cggcaggggttctctcgccaccctcagctgcctgcacatctggattata atgcctttcgtgaagacctgcctcatggctcctcgttgagaccata tggaagagtgaacagatgctgtcattgccccgtgtgtcaagtgtagg acgcagcttctctgtcagcttgaagtgaatcagcactgagcactgg accca  (SEQ ID NO: 160)
C47	matrix metalloproteinase-14	AF032025	ttctcaaaggagacaagcactgggtgttgatgaagcttcttggaaact ggctacccaagcacatcaaggagctgggcccaggactgcctactga caaaatcgatgctgctctcttctggatgccaatggaagacctacttct ccggggaaacaagtattaccgtttcaacgaggaactcagggcagtg acagcgagtacccccaaaaacatcaaggcttggaaggaatccctga gtctccagagggtcattcatgggcagtgatgaagtctcactacttcta caaggggaacaaatactggaaattcaacaaccagaagctgaaggta gagccaggcta  (SEQ ID NO: 161)
C48	matrix metalloproteinase-9	AB006421	gattctcaagggaaggacgcccgggtgcagggccctcttatcac cgagcacgtggcctgcgtgccccgcaagctggactccgctttgagg acgggtcaccaagaagacttcttctctggtggcgaagtgtgggtg tacacaggcagctcggtgtagcccgaggcgtctggaagctggg cctgggcccggaggtaccgaagtcacggcgccctcccgaagcgg gggtaagggtgctgctgttcagcaggcagcgttctgagttcagctg aagacgcagaccgtggatcccaggagcgccggtcgggtggaacag atgtacccgggggtgccctgaacacgcatgacatctccagtaaccaag agaaagcctactctgccaggaccgcttactggcgtgtgaattctcgg aatgaggtaaccagggtgacgaagtgggtacgtga  (SEQ ID NO: 162)
C49	IL-8	U10308	gtggccacattgtgaaaactcagaaatcattgtaaagctttcaatgga aatgagggtgcctggacccaaggaaaaatgggtacaaaagggtgt gcagatatttctaagaaggctgagaaacaagatccgtgaaacaaca aacacattctgtggttccaagaattcctcaggaaagatgccaatgag actcaaaaaaatctatttcagtacttcatgtccgtgtgacctggtgtag gattgccagataaaaaacagtatgccagttgattgaaatattaagta aaacaatgaatagtttttctaaagtcataatgttgccctattcaatgtct aggcacacttacattaaacataattattcattgttgctgaaattcaaatgta gctggaaatcctggatataattgtgtgtgtacatcttccacctacactaca ggccaggatgcatgagtcctttcaacctgacctgggtc (SEQ ID NO: 163)

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
C50	keratinocyte growth factor	U80800	caatgacatgactccagagcaaatggctacaaatgtgaactgtccag ccctgagcgacatacaagaagttatgattacatggaaggaggggat aagagtgaagaagactcttctgtcgaacacagtggtatctgaggattgat aaacgaggcaaaagtcaaagggacccaagagatgaagaacagttac aatatcatggaaatcaggacagtggtggaatagtggcaatcaaa ggggtggaaagtgaatattatctgcaatgaataaggaaggaaagctct atgcaaagaagaatgcaatgaagattgcaactcaagaattaattct ggaaaaccattacaacacatatgcatcagctaaatggacacacagcg gaggagaaatgtttgtgtttaaataaaaaggggttcctgtaagggg aaaaaaacgaagaagaacaaaaaacagcccactttctcctatggc aa (SEQ ID NO: 164)
C51	decorin	U83141	gattgaaaaatggagcctccagggaatgaagaagctctctatatccgc attgctgataccaataactaccatccctcaagggtctcctcctccctac tgaattacatctgaaggcaacaaaatcaccaagggtgatgcatctagc ctgaaaggactgaataattggctaagttgggactgagtttaacagcat ctccgctgtgacaatggcactctagccaacactcctcatctgaggag ctactgtgacaacaataagctcatcagagtacccggtgggctggcg gaggcataagtacatccagggtgtctacctcataacaacaatatatctgc agtcggatctaatactctgcccacctggatacaacaccaaaaaggct tctattcagggtgtgagcctttcagcaaccagtgagtagtgaggagatc cagccatccacttccggtgtgtctacgtgcgctctgccatccagcttga aattat (SEQ ID NO: 165)
C52	glucose-6-phosphatase	U91844	ctggggatctcagctgcaggattttctacctgtcccatcctacaagaaa gggaaaggagcagtggtttagatagaagaagaatggattaagg aaagacttctcgtatcctgcatatcatgcaaatcatgttacacaaaatct aaatcgcttgattatattgaatttttaggtaaggaaactctcaatagtggg gaccaacttaagcataactaataggtagttaatggggaattctgctct tctatgtttctactatgtattcagtgacctagattgtgtgggtcagagcatt cagatatagtcagcttctctatcacactacatcttctcctgtcagcctag ctgagctttccctagaacttccactgctctacatcgtgctgacacagaga tgcctaaaggcagctctagggtagtgctttgtatggttagtcaagctctg aaatctgggcaaaaaggtaggagaggggcaaggagaggaaagg at (SEQ ID NO: 166)
C53	TGFB1	L34956	gacccttctgctcctcatggccacccactggagagggccagcacc tgcacagctcccggcagcgccgggcccctggacaccaactactgcttca gctccacggagaagaactgtcgcgtccggcagctctacattgactccg caaggatctgggctggaagtggatccatgagcccaagggttaccacg ctaacttctgctggggccctgcccctacatttgagcctggacacgca

ID#	Gene Name	Accession Number	Target Sequence
			gtacagcaaggtcctggccctgtacaaccagcacaacccgggcgcggt cgggcggcgcgtgctgctgcccgcaggcgctggagccactgcccatc gtgtactacgtgggcccgaagcccaaggtggagcagctgtcgaacat gatcgtgcgctcctgcaagtgcagctgaggccccgccccgtccggcag gccccgccaccggcaggncggccccgccccgccccgctgccc gggctgtatttaag  (SEQ ID NO: 167)
C54	ZAP36/annexin IV	D38223	gacacgtccttcattgtccagaggggtgctggtgctgctgctggccggtgg cagggatgaaggaaatttctggacgatgctctcatgagacaggatgct caggacctgtatgaggctggagagaagaaatggggaacagatgagg tgaaatttctgactgttctgctcccgaaccgaaatcacctgttgcatgt gtttgatgaatacaaaaaggatatcacagaaggatattgagcagggtatt aaatctgaaacatccggtagctttgaagatgctctgctggccatagtaaa gtgcatgaggaacaaatctgcatactttgctgaaaggctttataatctat gaagggcttgggaacagatgataacaccctcatcagggttatgggtgct cgagcggagatcgatatgatggacatccgggagagcttcaagaggctt tacggaaagtctctgtactcctcatcaagggtgacacatctgg  (SEQ ID NO: 168)
C55	N-ras	U62093	gttgagcagggtggtgttgggaaaagcgcactgacaatccagctaatac cagaaccactttgtagatgaatatgatccaccatagaggattctaccg aaaacagggtggtatagacggtgaaacctgtctgttggacatactggat acagctgggtcaagaagagtagcagtgccatgagagaccaatacatgag gacaggcgaaggctcctctgtgtatttgc  (SEQ ID NO: 169)
C56	K-ras	U62094	gtagtggagctggtggcgtaggcaagagtgccctgacgatacagcta attcagaatcacctttgtggatgaatatgatcctacaatagaggattcctac aggaaacaagtagtaattgatggagaaacctgtctcttggaatttctcga cacagcagggtcaagaggagtacagtgcaatgagggaccagtagcatg aggactggggaggggcttcttgtgtatttgc  (SEQ ID NO: 170)
C57	p38 MAPK	AF003597	ctggtgacccatcttatgggagcagatctgaacaacattgtgaaatgtca gaagcttacggatgacctgttcagttccttatctacaaattctccgagg tctcaagtataatacattcagctgacataattcacagggaacctaaaacct gcaatctagctgtgaaatgaagactgtgagctgaagatcctggactttgg actggcccgacatacagatgatgaaatgacaggctatgtggctaccag gtggtacagggtccttgagataatgctgaactggatgcattacaaccag acagttgatatttggcagtggtgatcataatggccgaactgttgactgg aagaacgttgttccctggtacagaccatatattgatcagttgaagctcattta aactcatttgaacccccaggggctgacttttgaagaaaatctcctcaag



TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY			
ID#	Gene Name	Accession Number	Target Sequence
			agtctgcaagaaactacattcagctcttgacccagatgccgaagatgaa cttgcaaa  (SEQ ID NO: 171)

Please substitute **TABLE 3 50-mer target sequence for canine arrays** with **TABLE 3 50-mer target sequence for canine arrays**, amended as follows:

**TABLE 3 50-mer target sequence for canine arrays**

ID#	Gene Name	GenBank Accession Number	50-mer sequence
C58	Cytochrome P450 2D	D17397	ccggctcctcagcaggggcccaggtacaat aaaccagttgggtgctcc  (SEQ ID NO:172)
C59	Cytochrome P450 2B	M92447	aactcaaataaacatcaaaagcctgacatcc cctggtcagggtgtgagcc (SEQ ID NO:173)
C60	Cytochrome P450 2C41	AF016248	ccagtgaacatccaacctccattaaaggaaa gtctccagaatttcttgc  (SEQ ID NO:174)
C61	Cytochrome P450 2C21	AF049909	tatctctgcctctctgtgtgtgtctctcatgaa taaataaaatctt (SEQ ID NO: 175)
C62	Cytochrome P450 3A	X54915	gtgacacagaatgagaaactcttaactctggg aatgtacaagggatagt  (SEQ ID NO: 176)

Please substitute **Table 6** with **Table 6** amended as follows:

Table 6				
ID #	Gene Name	Left PCR primer sequence	Right PCR primer sequence	Target Sequence on canine array
C64	Gadd45	AACTGA ACCAAA TTGCACT GAA  (SEQ ID NO: 177)	CCATG TAGCG ACTTT CCCG  (SEQ ID NO: 178)	CGCGTCTAGAAACTGAACCAAATTGCACTGAA GTTTTGAAATACCTTTGTAGTTACTCAAGCAGT TACTCCCCACACTGATGCAAGGATTACAGAAA CTGATGTCAAGGGGCTGAGTGAGTTCAACTAC AGATTCCGGGGGCCCCGGAGCTAGATGACTTTG CAGATGGAAAAGAGGTGAAAATGAAGAAGGAA GCTATGTTGAAACAAATACAAGTCAAAAGGAA CAAAAATTACAAAGAACCATGCAGGAAGAAG CTTGCC (SEQ ID NO: 179)
C65	Super-oxide dismu-tase Mn	AACAAC CTGAAC GTCACC GA  (SEQ ID NO: 180)	TCTCC CAGTT GATTA CATTC CAAA  (SEQ ID NO: 181)	GCGCGAATTCAACAACCTGAACGTCACCGAGG AGAAGTATCTGGAGGCGCTGGAGAAGGGTGAC ATTACAGCTCAGATAGCTCTTCAGCCTGGGCTC AAGTTCAATGGAGGAGGTCATATCAATCATTC CATCTTCTGGACAAACCTGAGCCCTAAGGGTG GTGGAGAACCAAAAGGGGAATTGCTGGAAGC CATCAAACGTGATTTTGGTTCCTTCGACAAATT TAAGGAGAAGTTGACCACTATATCCGTCGGTG TCCAAGGCTCAGGTTGGGGTTGGCTTGGTTTCA ATAAGGAGCAGGGACGCTTGCAAGATTGCTGCT TGTTTTAACCAAGGATCCCCTGCAAGGAACAAC AGGTCTTATTCCACTACTGGGGATCGATGTGTG GGAGCATGCTTATTACCTTCAGTATAAAAATGT CAGACCGGATTATCTAAAAGCTATTTGGAATG TAATCAACTGGGAGAAAGCTTGCC (SEQ ID NO: 182)
C66	UV Excision repair protein RAD23 (XP-C)	GAAAGT CAGGCT GTGGTTG A  (SEQ ID NO: 183)	TGGCA GCCAA ATTCT CATTC  (SEQ ID NO: 184)	CGCGGGATCCGAAAGTCAGGCTGTGGTTGACA CCCCTCCCGCAGTCAGCACTGGGGCTCCTCCAT CTTCGGTGGCAGCTGCTGCAGCAACTACAACA GCGTCAACAACCACAGCGAGTCCTGGAGGACA TCCCCTTGAATTTTACGGAATCAGCCTCAATT TCAACAGATGAGACAAATTATTCAACAGAATC CTTCCTGCTCCCAGCATTGCTACAACAGATAG GTCGAGAAAATCCTCAATTACTGCAGCAAATT AGCCAGCACCAGGAGCATTTTATTGATGTT AAATGAACCAGTTCAAGAAGCTGGTGGTCAAG GAGGAGGGGGTGGAGGTGGCAGTGGAGGAAT TGCAGAAGCCGGAAGTGGTCATATGAACTACA TTCAAGTAACACCTCAGGAAAAAGAAGCTATA GAAAGGTTAAAGGCACTAGGATTTCTGAAGG ACTTGTGATACAAGCGTATATTGCTTGTGAGA AGAATGAGAATTTGGCTGCCAAAGCTTGCC (SEQ ID NO: 185)

C67	Proliferating cell nuclear antigen gene	GATAAC GCGGAT ACCTTGG C  (SEQ ID NO: 186)	AGTGT CCCAT ATCCG CAATT TT  (SEQ ID NO: 187)	GCGCGGATCCGATAACGCGGATACCTTGGCGC TGGTATTTGAAGCACCAAGAACAGGAGTACAG CTGTGTAGTAAAGATGCCTTCTGGTGAATTTGC ACGTATATGCCGAGATCTCAGCCATATTGGAG ATGCTGTTGTAATTTCTGTGCAAAAGACGGA GTGAAATTTTCTGCGAGTGGAGAACTTGGAAA TGGAAACATTAAATTGTCACGGACAAGTAATG TCGATAAAGAGGAGGAAGCTGTTACCATAGAG ATGAATGAACCAGTTCAACTAACTTTTGCACCTG AGGTACCTGAACTTCTTTACAAAAGCCACTCC ACTCTCTTCAACGGTGACACTCAGTATGTCTGC AGATGTACCCCTTGTGTAGAGTATAAAATTGC GGATATGGGACACTAAGCTTGGCC  (SEQ ID NO: 188)
C68	Glucose-regulated protein 94	CTGTGGT GTCTCTG CGCCT  (SEQ ID NO: 189)	TTTCA GCTGT AGATT CCTTT GCTG  (SEQ ID NO: 190)	CGCGGGATCCCTGTGGTGTCTCAGCGCCTGAC AGAGTCTCCGTGTGCTCTGGTGGCCAGCCAGT ATGGATGGTCTGGCAACATGGAGAGAATCATG AAAGCTCAAGCATACCAGACGGGCAAAGACAT CTCTACAAATTACTATGCCAGCCAAAAGAAAA CATTGAAATTAATCCCAGACATCCCCTGATCA AAGACATGCTTCGACGAGTTAAGGAAGATGAG GATGACAAAACGGTATCGGATCTTGCTGTGGT TTTGTGTTGAGACAGCAACGCTGAGATCAGGCT ATCTGCTACCAGACACTAAAGCATATGGAGAT CGAATAGAAAGAATGCTTCGCCTCAGTTTAAA CATTGACCCTGATGCAAAGGTGGAAGAAGAAC CAGAAGAAGAACCCGAAGAGACAACCGAGGA CACCACAGAAGACACAGAGCAGGACGATGAA GAAGAAATGGATGCAGGAACAGACGACGAAG AACAAGAAACAGCAAAGGAATCTACAGCTGA AAAAGCTTGGCC (SEQ ID NO: 191)
C69	Glutathione S-transferase alpha subunit	CAGAGA AGCCCA AGCTCC AC  (SEQ ID NO: 192)	ACCAG ATGAA TGTC GCCCCG  (SEQ ID NO: 193)	CGCGGGATCCCAGAGAAGCCCAAGCTCCACTA CTTCAATGGACGAGGCAGAATGGAGTCCATCC GGTGGCTCCTGGCTTCAGCTGGAGTAGAGTTT GAAGAGAAATTTATAAATGCTCCAGAAGACTT GGATAAATTAATAAATGATGGAACTGATGT TCCAGCAAGTGCCAATGGTGGAAATTGATGGA ATGAAGCTGGTACAGACCAGAGCCATTCTCAA CTACATTGCCACCAAATACAACCTCTATGGGA AAGACATAAAGGAGAGAGCTCTGATAGATATG TACACAGAAGGTATAGTAGATTTGAATGAAAT GATCATGGTTTTGCCTCTATGCCCACCTGATCA AAAAGATGCCAAGATTACTCTGATCAGAGAGA GAACAACAGATCGTTATCTCCCCGTGTTTGAA AAAGTGTTAAAGAGCCATGGACAAGACTACCT TGTTGGCAACAAGCTGAGCCGGGCTGACATTC ATCTGGTCTCGAGGGCC (SEQ ID NO: 194)
C70	BR-	GTCCGTG	CACCG	GTCCGTGGCAGAGTCCCTCAGCTCTATAGACTC

	cadherin	GCAGAG TCCCTCA GCTCTAT  (SEQ ID NO: 192)	TGATG CCACA TAGCT ATCTT CG  (SEQ ID NO: 196)	TCTCACCACAGAGGCTGACCAGGACTACGACT ATCTGACAGACTGGGAACCCCGCTTTAAAGTC TTGGCAGACATGTTTGGGGAAGAAGAGAGTTA TAACCCTGATAAAGTCACTTAGGGCAGAAGCC AAGGATAAAACACAACCAAAAGGAGAAATTT AAAAGAAACACAAATAGAAATCTCTCTCTCTC ACACACACACACATGCATACATGCACGTGCAC ACACAGACACACAGACACACACACCAGGCTTT GTAGGACACAATCATTTGATGATCTGGTTTCTA GCAAGTTGCTGTAGTTATCATATTGTCAAGTTT TGTTTTACTCTGCCAACACAAGATAAATCCTAT TACATGTACTTGCTTGGTTTTGTTTTGTTCTTTT GGATACACACTGAGACAAGCTCAGGCCTATTA AATACAATTTACTGACATGACAACATAGAACG AAGATAGCTATTGGCATCACGGTG (SEQ ID NO: 197)
C71	N- cadherin	GGAGCC TGATGCC ATCAAG CCTG  (SEQ ID NO: 198)	GGTTT GCAGC CTATG CCAAA GCC  (SEQ ID NO: 199)	GGAGCCTGATGCCATCAAGCCTGTAGGAATCC GACGATTGGATGAGAGACCCATCCACGCCGAA CCCCAGTACCCGGNCCGATCTGCAGCCCCGCA CCCTGGGGACATCGGGGACTTCATTAATGAGG GCCTTAAAGCTGCTGACAATGATCCCACAGCT CCACCATATGACTCCCTCTTAGTCTTTGACTAC GAAGGCAGTGGCTCTACCGCTGGGTCTTTGAG CTCCCTTAATTCTTCAAGTAGTGGTGGCGAGCA GGACTATGACTACCTGAACGACTGGGGGCCAC GGTTCAAGAACTTGCTGACATGTATGGTGGA GGTGATGACTGAACTTCAGGGTGAACCTGGTC TTTTGGACAAGTACAAACAATTCAACTGATAT TCCCCAAAAGCATTTCAGAAGCTAGGCTTTAAC TTTGTAGTCTACTAGCACAGTGCTTGCTGGAGG CTTTGGCATAGGCTGCAAACC (SEQ ID NO: 200)
C72	Mek5	TCATGG ATGGGG GATCTTT GGATG  (SEQ ID NO: 201)	GGGTG GCCCA TCAAT TCTTC AGGT  (SEQ ID NO: 202)	GGGTGGCCCATCAATTCTTCAGGTGCTGGTCTT TCTTTCGGTTGTTTTTCGCATGCACTGAGTGATG AAATGTACAAATGGCTCGGAGAACTCTCCAAC CGGAAGGACGGGCGAATCCTCATCAACAATGC ACTGCAGAAGCTGGAGAGGCTCCATGAAAGAG ATTCTTAACTCCGGACATCAGAATGGATTCC ATACTGCTCCCCTGAAATCTTTCAGGCGCCAT ATAAGCATTTGTTCCAACATACGTCTTGGCTAT AGAATTACACAGCTGAGTGCTAACTCCAAAAT CGCACAGCTTGACCTGTCCTCTTGTGTTTACTA GCGTATTGGAGGGCTTCACATCTCTATGTAAA ATCTTTAACTCCACAAGTAGGTAAGGCCTTTA ACAACTGCTATTGCAATTCTTCCAAGGACATGC TCTGGAATTTTCTATATACATCCAAAGATCCC CCATCCATGA (SEQ ID NO: 203)
C73	Glucose transpor- ter	GCAGCA GCCTGTG TATGCCA CC  (SEQ ID	AAGCC GGAA GCGAT CTCAT CGAA	AAGCCGGAAGCGATCTCATCGAAGGTCCGGCC TTTGGTCTCAGGAACCTTTGAAGTAGGTGAAGA TGAAGAACAGAACCAGGAGCACGGTGAAGAT GATGAAGACGTACGGACCACACAGTTGCTCTA CATACTGGAAGCACATGCCCAATGAAATTT GAGGTCCAGTTGGAGAAGCCAGCAACAGCAAT

		NO: 204)	(SEQ ID NO: 205)	GGCAGCTGGGCGAGGACCCTGGCTGAGGAGTT CAGCCACAATGAACCATGGGATGGGGCCAGGG CCCACCTCAAAGAAGGCCACAAAGCCAAAGAT GGCCACGATGCTGAGATACGACATCCAGGGCA GTTGTTCCAGCAGCGCCAGCGCGATGGTCATG AGCACGGCACAGCCCGCCATGCCAGCCAGGCC TATGAGGTGCAGGGTCCGCCGGCCGGCGCGTT CCACCACGAACAGCGACACCACGGTGAAGGCC GTGTTACGATGCCGGAGCCGATGGTGGCATA CACAGGCTGCTGC (SEQ ID NO: 206)
C74	SHB (Src homology 2 protein)	CGCCGA TGAGTA CGACCA GCCTT  (SEQ ID NO: 207)	GCTCA GCCCC TTTGA TGGGT AGC  (SEQ ID NO: 208)	CGCCGATGAGTACGACCAGCCTTGGGAGTGGAA ACCGGGTCACCATCCCAGCTCTGGCAGCCCAG TTTAATGGCAACGAGAAACGGCAATCATCCCC CTCTCCTTCCCGGGACCGGCGGCCAGCTTCG AGCTCCTGGAGGGGGCTTCAAGCCCATTAAGC ATGGGAGCCCTGAGTTCTGTGGGATCTTGGGA GAAAGAGTGGATCCTGCTGTCCCGCTGGAAAA GCAAATCTGGTATCACGGAGCCATCAGCAGAG GAGATGCTGAGAACCTTCTGCGGCTCTGCAAG GAGTGCAGCTACCTTGTCCGGAACAGCCAGAC AAGCAAGCACGACTATTCCTCTCTTTGAAGA GCAACCAGGGCTTTATGCACATGAAACTGGCC AAAACCAAAGAGAAGTATGTTCTGGGTCAGAA CAGCCCCCGTTTCGACAGTGTCCCAGAAGTCA TCCACTACTATAACCACCAGAAAGCTACCCATC AAAGGGGCTGAGC (SEQ ID NO: 209)
C75	Ear-3 (v- erbA related) or Apolipoprotein AI regulatory protein (ARP-1)	TGCAGA TCACCG ACCAGG TGTCC  (SEQ ID NO: 210)	CATAT CGCGG ATGAG AGTTT CGATG G  (SEQ ID NO: 211)	TGCAGATCACCCGACCAGGTGTCCCTGCTTCGC CTCACCTGGAGCGAGCTGTTTGTGCTGAATGC AGCACAGTGCTCCATGCCCCCTCCACGTCGCCC CGCTCCTGGCCGCGCAGGCCTACACGCCTCA CCCATGTCCGCGGACCGAGTGGTTCGCCTTTATG GACCACATACGGATCTTCCAAGAGCAAGTGGA GAAGCTCAAAGCGCTGCACGTCGACTCCGCCG AGTACAGCTGTCTCAAGGCCATAGTCCTGTTC CCTCAGATGCCTGTGGTCTCTCTGATGTAGCCC ATGTGGAAAGCTTGCAGGAAAAGTCCCAGTGT GCTTTGGAAGAATACGTTAGGAGCCAGTACCC CAACCAACCAACACGATTTCGAAAGCTTTTAC TTCGCCTCCCTTCCCTCCGCACGGTCTCCTCCT CAGTCATAGAGCAATTGTTTTTCGTCCGTTTGG TAGGTAAAACCCCCATCGAAACTCTCATCCGC GATATG (SEQ ID NO: 212)

Please substitute **Table 7** with **Table 7** amended as follows:

Table 7			
Band #	Genbank Gene Name	Accession	Sequence
CTP1D	No significant match		GACTGAGACCATTATTTCNAGACA CGCAGCTGACCAAGGAGTGAGGG AGGGACCAGGTGTGCAAGCTAAT AAATAGAGGAGGGGGAGACTTCC TGGAGCTGTAGCCATTTCAGTCTTC ATTCTTCTCAGGCATGAAGGCATC TCTTTTCTGACCAAAGCTT (SEQ ID NO: 213)
CTP1G	No significant match		AAGCTTTGGTCAGCAATTATATTA GTTTGCATTTTAGTGACAGGTGTA AGAGAAAGGCCCTTCTTCCCTTA CTGGGACAAATCTAGAAATCTTAC ACAGATGTGCAAATAAAGCTCGCG TGGTGTTT (SEQ ID NO: 214)
CTP3B	Homo Sapien N-myc downstream regulated (NDRG1)	BC003175	GCAAAGTTACAAATTTATTGGTCT GGAAATAAATACAAATATCTGATTA AGAAACTTCTCTGGAAAGACTTGT ACACAACAGTTTTCTGTCTCGAT TCAGCCACTCCTGCCCTGACCAAA GCTT (SEQ ID NO: 215)
CTP4B	No significant match		GAGCAGCAGTGAGCAAAACCCAC GAAGTTGTTTTAAGGTTACAGCTA TGAATAAACATTGTCCAAACAATG AAGATTTAGGGCTGAAGAACGAG CGTATGTCTACAGTCGAAGCTT (SEQ ID NO: 216)
CTP7B	No significant match		CAGGTGCAAGAGGTTTGTGTTGGG AGGTAATCCTAGAAACACAGAAG GGGTGGGGATAGGAGGGATGG CAGGAAAACCAAGTAAGAACTGTGT TATTGAGAAGGTTATCACTGTGGA CAACTGGCACAGAATACACTTCAG AGCTGTCGCCCTGAGGGACAATG ACGCCAAGGTCTTTTTCTCTAAGT CCTGTTTCTTATAGGCCGAGGGTG GCTCCTGGGAGCAGTAACTGCCA ACAGTCGAAGCTT (SEQ ID NO: 217)

CTP8A	No significant match		AAGCTTGATTGCCCATACCTGAGC CATTGATATATTTGAAAATTATGGC ACAAATGGAAGAGAACCACATTTG AAAAGCTTCCAGCCTTTCAACAGA AGATAACTCTTCTGTTTTGCAGAT TGAGCAGATAATTTCTTTGAAGG TGATAGTTTCCTAAATTGGATAAAA CCGTGGCTGCCATTATATTCACAG AAAATAAAATGAAAACCTTCAGTTAA TTGTGGATTTG (SEQ ID NO: 218)
CTP8C	Human DNA sequence from clone RP4-734P14 on chromosome 20	HSJ734P14	CAATATTCTTAAGAGTTTATTATAA ACTAGTTTCACAGGCTACAAGGAA GTATTTAGGACTATGTACAGCCTG ACGGGAAACAGGCAGGGAGCTGA GGAGGGCCAAGATGAGTCTAGGG CCTTGGTGGGCGCATTCCCGGGG GAGGGGGCCCTGAAAGGGAAACC AGACAATCCTGTGAGACTCCAAGA ACAACGGCATAACAAACAAACACG TCTGTGGCAATCAAGCTT (SEQ ID NO: 219)
CTP10Y	Canis familiaris mitochondrion	CFU96639	AGTAGATGGGACCGAGAATAATTT TAGGGTTAAGGGATAGGAGGAGT AGGGGCAGTAGGTGCAAGGTCAT TAGGGCATTCTCGTGTGAATGA TGGTTTGATATTTTGTATGGTG GGAATATTTACCACGTTGTGTGGT GATTAATATATAAAGTGAGTATAG GGCGGTAAAAGCTT (SEQ ID NO: 220)
CTP11A	cyclin-dependent kinase inhibitor 1A (p21, Cip1),	BC001935	ACTAAGAAATATTTATTGAGCACCT GCTGTGTACCCAGCACTGCGGGA GGGGCTGTGAGAGACCCAGGGCA GTACAGGACTTGTCTTGCCCTTC AGAGGCTTATAGTCTAGGTGAAA CAGGAGAACCAGGACACATGAGG AGCCAGGAGAAAACAGTACAGGC CAGGATGTTACAGGAGCTTACAGT GTTTGGGGTCAGACCCACTAAGT GCTTCAGTACCTCTAGGGGCTCAA TGTTTCAGGGCCAGAAGAGACAATA ACTCACAACCTAGCCCATGTAGCAT GCCCTATCCACAGCGTCTACCTCT GCTATCTTAAACATCTGACTCCT CGTTAAGCTT (SEQ ID NO: 221)

CTP16B	Homo sapiens cDNA FLJ20541 fis, clone KAT11364	AK000548	CAAAGAATTTTGTTTTATTATAGTA CATGAGCTGGACTGATGGGAAAG GGTAGGTGTATGGGCAACCACTG CCCAGATTAGCATCGGATGCCCAT CCCGATGGCCATGAATGTGCCAA ATGTGCCGCCACTCTGCATCATGG TTTTCCCGATGCCGCCCATCAGCT CCCGACCCCGCATTCCGATCCTG AGACAGGAAAAGGTGCCGAAGAG CGCCCCGGCCGCCATGCCCACTG CACAACCCATCACAAAGCCCATCT TCACGCGGTAAAAGCTT (SEQ ID NO: 222)
CTP17G	No significant match		CATATATATTCTTTTTTATTCTTGT TATACCTTCCCAAACAGAGACAT TCAACAGTAGTTAGAATGGCCATC TCCCAACATTTTAAAAAACTGCA CCCCCAATGGGTGAACAAAGTAA AGAGTAGTAACCTAGAGTTCAGCT GAGTAAGCCACTGTGGAGCCTTAA GTGGTGAGGTCTTCCAATTTGAGA GTGATGTGTCTTCAACTTGTATCA TCATTTTAGCGGTAAAAGCTT (SEQ ID NO: 223)
CTP18B	No significant match		CCAAAGAAGTGTTTATTAACATTTG GGGCCTCAGCGGGGCCAGAGAG GAAGTGGGTGCTAGAGGCTCCTG AGGCTCAGGGCAAGGCCTGCAAG ACAGATCCCATTGCTCAGGAGGC AGCCCAGATTGCAAATGGAAGACA GG (SEQ ID NO: 224)
CTP19F	Homo sapiens chromosome 5 clone CTB-187A7	AC008651	AAGCTTTTACCGCAATGAGGGATT TATACATGAAAAATGGACAAGGCT TTGCATTAGTTTACTCCATCACAG CACAGTCTACATTTAATGATTTACA AGATCTGAGAGAGCAGATTCTTCG AGTTAAAGACACTGATGATGTAAG CTGACTTCCTAATAAATATATTTTA CTTG (SEQ ID NO: 225)
CTP20B	Bos taurus ribosomal protein L30 mRNA	AF063243	AAGCTTAACGAGGACAGGCCATC AGGGCTGCCAAGGAAGCAAAAAA GGCTAAACAAGCATCTAAAAAGAC AGCAATGGCTGCTGCTAAGGCTC CCACAAAGGCAGCACATAAGCAAA AGATTGTGAAGCCTGTGAAGGTTT CCGCACCCCGAGTTGGTGAAAAA CGCTAAGTTTTAGTGGATCAGATT TTTAAATAAACATCTGACTCTAACT (SEQ ID NO: 226)



CTP21A	Rattus norvegicus ribosomal protein L31 (Rpl31),	NM_022506	CATGGAGCNGTTTTATACCTTTATT TGACAATCAGCGATTAGTTCTCAT CCACATTAACAGTCTGTAGATTTTT GAAAGTGGTGACAGGTACGTAGG TAACCAGCGTGTAGAGCTTGTTTG GTGAATCTTCATCCTCGTTAAGCT T (SEQ ID NO: 227)
CTP22C	Canis familiaris mRNA for ubiquitin-ribosomal protein L40, fusion	AJ388512	CAATGGTGTCACTGGGCTCGACC TCAAGGGTGATAGTTTTGCCCGTC AGGGTCTTCACAAAGATCTGCATC TCTGCGTCTGCTGGAGCGAACTC GCAAGGCCGCCGCCACCAAACCG CTCGCCACCTCGTTAAGCTT (SEQ ID NO: 228)
CTP25D	No significant match		AAGCTTGCACCATATATAACTCT TGGGCAGAGGGTCTGGCATAACAT AAGTAGATACTCAGAAATATCTGT TGGATTGTGTTGATTTAATTATTTT TGTGTTGCTTCTTTTAAAGATGAG CACTTTCTATTAGATATTTTTTTGA TCAAAAAAAGATATTTTTTTGATC ATACAGATTTAAGCAGGATTTTTAT TAATTCGTTTCTCTTCCTGGTTGG (SEQ ID NO: 229)
CTP26A	Canis familiaris chymase gene	U89607	CATGAGAGAGACGGAAAGAGAGG CAGAGACACAGGCAGAGAGAGAA GCAGGCTCCATGCAGGGAGCCTG ACGAGGGACTCGATCCCAAGACT CCAAGATCGTACCCTGGGCCAAA GGCAGGAGCTTAACCGCTGAGCC ACCCAGGTGTCCCAACTGTCAGG GTTTTAAAAGAGTGAGTGAAATTT GGGGAAATATCAAGGCACAGTCAT ATTCATAAACATAATACGTTGAGAA GCTT (SEQ ID NO: 230)
CTP26B	H.sapiens cycA gene for cyclin A	X68303	AAGCTTCTCAACGTATATGGTGTA CAGTTTTTGTAAGGTTTTAATTTTA CAATCATTCTGAATAGTTATGGTC AAGTACAAATTATGGTATCTATTAC TTTTTAAATGGTTTTAATTTGTATAT CTTTTGTACATGTAACATATCTTAGT TATTTGGCTAATTTTAAAGTGTTTT GTAAAGTATTAATGATGCCACCT GTCAGCACAATAAGAGTAAGAACT AATAAATGGATTTGG (SEQ ID NO: 231)

CTP27C	Homo sapiens CTCL tumor antigen se20-10 mRNA	AF177227	AAGCTTCTCAACGTATTCAAGAGA AAACTTCTAAATTGCCAGATATGTT AAAAGACCATTATCCATGTGTGTC TTCAGTGGAGCAGTTAACAGAGTT GGGAGGTGAACTGATGTTTTTGT ATGCCGTCCTAACACAGCCCTATG CCCGATGTACTCAGAGACTGGAA CAGCACAAGAGAAATAAGCAACA ATCAGTAATGGG (SEQ ID NO: 232)
CTP28D	Homo sapiens upstream binding protein 1 (LBP-1a) (UBP1)	NM_014517	AAGCTTTGGTCAGGCAGGAATAG GAATGAGTAATTTGGGCTTTGAAA TCTCTCCCAGAAGACAACTACTT CGATGGGAAAAAGCTTTGACATTT TGTGTTTTATTTGTAGAGGGGGTT ATTGGATACAGAGGAGCCTGGTCT CATACATTTTCATCTTCAGTCTGAA AAGATCTGTAATTCTGTAGACCCT GAAGCGGGGGAACCTTTTCTTCTG CCATCTCCCTTTGCTTTCATATGAA CACCTCTTCTGTACCAATCATTTG GAAAAGAAGTGAGCATATCTCTTG TTTTAAAAGTTTGTGCTGNCTGGT AGCATTCCCTTTGAGCTCAACATA TATGGAACAATAAATGTCATTTAAT GCTGNGNGCTATTTTGAATTCCTC ATCAGGTTTTAGAAGTGGGGTCAA GAACACTTAAAAGCTCATTGGACT TTGAAATTATNCCAGCCGCCNTTG ACCATTATCTGGCCCANCAAAGCA GGTTAAATTATGGCNCCNGCAAAT TTGCTTTTTTTTTTAATAGNNGGAN GNNTACNTTTCAGNTTAATAAATG TTTTCCGATGGTTTGC (SEQ ID NO: 233)

CTP30E	Homo sapiens BAC clone CTB-60N22 from 7q21	AC003083	GGTCAAAGTGTATAGTTTTGACTT ACCCCTCCCAGATCCTGAATGTCC TTTTGGAGTTTTTCAGATACGGTG ACAGAAGGTAAGTCAATGTAAAT ATTTTTCCCAGAGTGGCTTATATT TGTATTTTTCTGGTTTGTATCAGT TTTCATAGATTTTCATAGATCTGTTT TTTTCATTTTTGACTTGGATTCCAC CTGTTGTTTAAAAAAGTAGAATCA GATCATGATTTATGTGGACAGAAA ATTTCTCTTTTAAAAATACTTTTTAT ACAGTCATCATTTTCATAGAGGGGG AAAAAATCTTTATAATACCACCAAT TAAACACTCAATAGCATTTTACTGT ATTTCTTCGTAGTATCACTTAGGAT AAAACCAGAATACCATATTTGTTTT AACAGATCCCATACTGTAAAATAA TCATCGTTACAGCCTACAGTCGA AGCTT (SEQ ID NO: 234)
CTP31A	No significant match		GGGGCAGATAAAAACTTAATGT AAAATTTACCTCTCAGAAAAATTT CCAGTATGCTATACGGTATCACTA ACTATAGTCACTATAGTATACAGTA GATCCCTAGGATTTATTCATGATG TACAGTCGAAGCTT (SEQ ID NO: 235)
CTP32D	cDNA FLJ14795 fis, clone NT2RP4001219	AK027701	AAGCTTGATTGCCAGAGTTACGAA AAGCATCAAAGCATCTTTATGGTC AGCTTAAATTTGGTACACTAGATT GTACAATTCATGAGGGACTCTGTA ACATGTATAACATTCAGGCTTATC CAACAATAGTGGTGTTCACCCAGT CCAACGTTTCATGAATACGAAGGCC ATCACTCTGCTGAACAGATCTTGG AATTCATAGAGGACCTTATGAATC CTTCAGTGATCTCCCTGACACCCA CCACTTTCAATGAACTGGTTAAAC AGAGAAAACATGACCAAGTCTGGA TGGTTGATTTCTATTCTCCATGGT GTCATCCATGTCAAGTCCTAATGC CAGAATGGAAAAGAATGGCCCGG ACATTAAGTGGACTGATCAATGTG GGCAGCGTAGACTGCCAACAGTA TCATTCTTTTTGTGCCCAAGAAAAT GTTCCGAGATCCCTGAGATAAGAA TTTACCCCCC (SEQ ID NO: 236)

CTP34A	Homo sapiens ribosomal protein S29	NM_001032	AAGCTTTGGTCAGGGCTCTCGTTC TTGCCGCGTCTGTTCAAACCGGCA CGGTCTGATCCCGGAAATACGGC CTCAACATGTGCCGGCCAGTGTTT CCGTCAGTACGCCAAGGATATAG GCTTCATTAAGTTGGATTAAGTGA ACTTCCTTGAATGGGTATCCAAG ATACCTACCTTAACTGCAGATGTC CAAGATACCTACTTTGATGCCAAC TCATTGTATATAAAATAAAATACT CCAATTATGAGTGTTTTAATGTG (SEQ ID NO: 237)
CTP36A	No significant match		CAAGTTTTACCATTGTTTTAATTAT TGAAACAAAATTAACGTAAGTAGA ATCATGTGCAACAGTGTCTCTAAC ATATGGAAGAGGTAAATATGAATT TTATACAATAAGGTATATTATCCAC TGTAACAAATTTCCAATAATTTGGC ATTTATCTTTCACAAAATGTCTCCC AAATTCTAAGCAAAGTATGCAAATT GGAGATTAACCTCTAAACAGGCATA ATTATCTTCTTATCCAGTTTTTCTG AAGAGACTGAAGAGTTCAGGTCTG ACCAAAGCTT (SEQ ID NO: 238)
CTP37A	Homo sapiens nuclear factor associated with dsRNA NFAR-1	AF167569	CAGATGTGATAAAATCGTTTTTCATT ACTGTCAAAGGCATCAACCAGATT TGGGAATTTGTTAAAAGGTTAAAA ATTCATACAAAACCTGCTGTAAATT AAGACAAAGGTAGATTAAAATGCA TCATTATCTGTCTCTTAAATAAAGT AATGCTTTCCATAAAAAGCAAAGG TGGGCTTTTGCCTTGATGCTGACC AAAGCTT (SEQ ID NO: 239)
CTP41B	Homo sapiens mRNA for KIAA1392 protein	AB037813	GGGAAGTGTCAGGATCAGTTCC GTGGCACCCCTCTGACCACAGACT GGGAGCAACACGCATCTGTGGCA TTTAAAAATGGAATTGGCAACTTC ATGACATTGGAATGCATATCACAC TTACAGTGTCTAGACTTTCCTATGT GTGCTCAGTTACAAGTAGTGAAGC AAAAGTATACATATCACCCCTACT GCTATTCGGTTGCTACAGAGCCAT AAATGTGAAAAGCAATACTCTGAA ATAAAGATTTTTGTTTTTGCCTA GCCTACTAAGCTT (SEQ ID NO: 240)

CTP47G	No significant match		AAGCTTGCACCATACTCCTCCTCT ACATATGCTCCCAAATTACCTTCTA AAAAGGCTGTATTAATTTACTTTCA CCAGTAGTATTATGAGAGTGCCCA TGCCCTTAGCCTTTTAAATTCAC TATGAGCAATCTTTAAATCATGTAC TAAATCTTATAGCAAAGAATAGG GCCTTGCCCCTGCCCTGTT (SEQ ID NO: 241)
CTP50A	No significant match		ATTCCTTTTCCAAGGACCTCTCTT CTATGTGATCACTGAGTAAGTTCA GTCACCTCCCATCATCTAGATTG GAGATTTCCAAATTTATGGCCTTT CCTAACTTTGAAGTCCTTATTTCTA ACTGCCTACTAAGCTT (SEQ ID NO: 242)
CTP51A	Homo sapiens intestinal N- acetylglucosamine-6-O- sulfotransferase	AF219991	ATAAATAGAGATGGGGGTCTTGCT ATGTTGCCAGGCTGGTCTTGAAC TCTGGGATCAAGCAATCTGCCTGC CTTGGCCTCCTAAAGTGCTGGGAT TACAGGTGTGAGTCACTGTGCCTG GCCTCATATAGTCACTATAACAGC CTACTAAGCTT (SEQ ID NO: 243)
CTP52B	No significant match		AAGCTTAGTAGGCAATAATAGAGA AGTAGAAATTGAATGTGGAACATT AACCATTAAAAATCATACTTTTGAA TGTGCTGAGGTCATGAATTGTTTT TACCTTCTTTGTAATTTGTGTTTT CAGATTTTCTGTAGTTAGCATATAT TCTATAATCAGAAAAAGATGCTTC AAGTTTTTTGCAGATTTACAGAAT TTTGTTT (SEQ ID NO: 244)
CTP53A	No significant match		AAACAAAATTCTGTGAAATCTGCA AAAACTTGAAGCATCTTTTCTGA TTATAGAATATCTGCTAACTACAGA AAATCTGAAAAACACAAATTACAAA GAAGATAAAAAACAATTCATGACCT CAGCACATTCAAAGTATGATTTTT AATGGTTAATGTTCCACATTCAATT TCTACTTCTCTATTATTGCCTACTA AGCTT (SEQ ID NO: 245)

CTP58A	No significant match		AATTGTCACGAACAGGGCTGACTG ACACTGCAGTGTGTCCTTGTTTGT TGATCCCTGATCTAGGCCTCGGCT TTTCAAACCTGCAGTTGATCAAAC GGGATATGCTTCGGCTGAATCTGC TCTCTGGTGCTTCTCTTTAATCGTT TTCTCCTTAAATGGGTTACTTTCTT ACTAGGAAAAAAAAAATGTTCCAC CTCTGGAATTAACGTTGAGAAGCT T (SEQ ID NO: 246)
CTP59A	Homo sapiens cyclin D2 (CCND2)	XM_012143	AGGTCAAGGTGAGTTTATTGTCCA AATAGCATAACCTAATTGCATTCAA AACCATTTTCAAATCCATCTTTAAA CTAGTCAGAAAACAGGTTATTATTT TTTTAAATCACTTAACACTGAACAG ATAAGACCTCTTAAAGGCAGCTG ACTATATCATGTCACCATCATAGC CAATACAACATTTTTGCCATACTTC CTAAAAACCTTTTCGCATACACTG ATCATGCTACTTATCAGCACTTTTT AACATCCTGACCAAAGCTT (SEQ ID NO: 247)
CTP60B	Homo sapiens RNA binding motif, single stranded interacting protein 1 (RBMS1)	XM_016120	ACTAAAATAAACCTGTTTCGGGGGG AACAGCTACTAGATGAATTTAAGG GTTTTATGCACCTTATAGAAGTTAT AGCAAAAATAGTTTTAGTTGATTC ATTATAAATAACGTTTTCAAGAACC TGTGCAAACTGTCAATAATTTCT AAAGCACAAATTGATCAGAAAAATC CATGATTGTTGAGCCTTCACACCC TTCTTCATGTAAGAACACCCTTCT GTACATCTCACAGTTACTTATTAG GTTGAAAGGTATATGGTGAATGGT CATTAGACGTCTCGACAGCCACCT GCTGCTGACCAAAGCTT (SEQ ID NO: 248)
CTP61D	prion protein [mink, Genomic, 2446 nt]	S46825	ACATTAAATGCCAGTGCAAGCCA GGAACATTGCAGAAATGCTAAATTT ATCTGCTAGGTGATGATATTGAAC GATCTAGACAATAATTTACCTTAC TTAAATAACAATGAACAGAAATTCCT TTTTTCCACTCTGAGTGGATATT CTGTCATCTCTGACCAAAGCTT (SEQ ID NO: 249)

CTP62A	No significant match		AAGCTTCGACTGTCGCATCAATGA ATGTTTTAAGTAATAACTTTGCTGG TTATCAGCTTGATGGTGCATTAATT TTATGGCTCATTTCTTTATTTTGA CCATTGTCGGATTCTTCATTTTATA TTGGACGATCCCCAATCGAACGGT ACCAATTTTTTCAGCTGTGATTGC GGCATGTTTCAACGCGACCGTTTT TGAAATTTTAAACATTTATTTGGC TGGGTCATGAGTAATTTCAACCAGC TATGAAATCGTTTATGGTGCTTTTG CAGCAGTTCCTATTTTCTACTTTG GATCTATCTGTCTTGAATATCATT TTATTGGGTGTAGAAGTGAGTTAT GCACTCACCGCCTTCCATTCTGGT (SEQ ID NO: 250)
CTP63A	No significant match		AGAATCAAGCCACCAGGTGTTTAT TTTTGCACTATAAATAGAGTTCCT AGTCCCATTTTGTTACATAATATAT GAGATAACAGAGAACCTAAATTC ATTTGGTGAAAATCAAGTGTGTAG TATACCTAAATACCAATGAGCTAG TAAGACTTGTAAGGCACTGAAGCT AAGGCTAACAGCAACAGAGTCCTT TATGAAAATAATTTTCAAGACCACAA CGCATTCTCTGATGGTGCATTCCC CTGGGACAGTCGAAGCTT (SEQ ID NO: 251)
CTP64B	No significant match		CATCGCAGACATTTATTTTAGTTTT GTTAATTTCAAATATTCATTAACCT CTTGATCAGATTTAAGGCAGAGA AAAGATACACGCCCTGGTTAACT GAACCGGGGTTTAGATAGTGTAGT CCACCCTGGGTTCACCAGGGAG ACCTCACCCGAGATGACAGGTCC GGTTGCTGGTGACAGTCGAAGC TT (SEQ ID NO: 252)
CTP65A	Pig mRNA for endoplasmic- reticulum Ca(2+)-transport ATPase (class 3 non muscle transcript )	X16951	CCATTTAAATGTTTTATTTTCTT TTTAACTAGATTGTGAAGTGCCA CTGAAATAGGCAATGTTGGCAAAA CAATGTCTGTTACAATAAAATACAT TAGACATTTAAATAAATAACCTTAA AACTACATGGGGGGACATGAAC CCAGTCGATTGAATCTGGAACAAT GTTTTCTGCACAAGCGAGAACAGG CATACCTCTTGTTAAGACTGATGT AAACAGAACCATCGGAACCCTACA GTCGAAGCTT (SEQ ID NO: 253)

CTP67A	clone RP5-1071L10 on chromosome 20	AL133228	CACGTTTTAAACTTTATTTGCATA TTAAAAAATTGTGCATTCCAATAA TTAAATCATTTGAACAAAAAATG GCACTCTGATTAACTGCATTTTAA CAGCCTGCAAGATACCTTGGGCC AGCTTGGTTTTTTACTCTAGATCTC ACTGTCCTCCCACCCAGCTTCTTC CTTCACCAACATGCAAGTTCTTTT CCTTCCCTGCCAGCCAGCCAGAC AGGCAGATGGGAAAGGCAGGCGC CTTCGTTGTCAGTAGTTCTCCATT CTTTGATGTGAAAAGGGGCAGCA CAGTCATTTAACTCGATCCAACC GCTTTGCATCTTACAAAGTTAAAC AGCTAAAAGAAGTAAAATAAGAAG GCAATGCTTGTGGAATGTACAGTG CATATTGGCGGCGCACGCCTCATT ACGATTGGGCTACTAAGCTT (SEQ ID NO: 254)
CTP68F	Oryctolagus cuniculus New Zealand white elongation factor 1 alpha Rabefla2)	U09823	CTCATTAACCTTTTGTTTAATGGG TCTCAAATTCTGTGACAGATTTT GGTCAAGTTGTTCCATTAAAAAG TACTGATTTTAAAACTAATAACTT AAAAGTCCACACACGCACAAAAA AAAAAAAAAAAAACAAATGGTCCAC AAACATTCTCCTTCTCTCTGAAG GTTTTACGATGCATTGTTATCATTA GCCAGTCTTTTACTATTAACTTAA ATGGCCAATTGACACAAACAGTTC TGAGACCGTTCTTCCACCACTGAT TAAGACTGGGGTGGCAGGTATTA GGGATAATATTCATTTAGCCTACT AAGCTT (SEQ ID NO: 255)
CTP70A	No significant match		AAGCTTAGTAGGCACGCAATAAAT AGGAGAATGAATCAGAGTCCTCCA ACGCGTCCTCCCTAATGTCCCTTT GAGCTGCCTCCTCTTCCACTCTGC CTCAGCTTGTCCATGTCACTTCGC TCCAGAGCAGCCGCAAGAGCATC TTAACACCTTGTGGCCTGAACCTCT CTCCCATCCTCCACTGTACAGTGA TATGACTGAAACCTCATTTAACCTT TTAGAACTACCAGGAGGAGGTTCC CAAGGATCCCAGG (SEQ ID NO: 256)



CTP71A	Canis familiaris caveolin-1 mRNA	U47060	CACTGAATCTCAATCAGGAAACTC TTAATGCACGGCACAACTGCCAG ATGTGCAGGAAAGAAAGAATGGC AAAGTAAATGCCCCATATGAGTGC CATTGGGATGCCAAAGAGGGCAG ACAGCAAGCGGTAAAACCACTATT TTGTACAGTGAAGGTGGTGAAG CTGGCCTTCCAGATGCCATCAAAA CTGTGTGTTCTTCTGGTTCTGCA ATCACATCTTCAAATCAATCTTGA CCACGTCGTCGTTGAGAAGCTT (SEQ ID NO: 257)
CTP72B	No significant match		CCATTTTGTCTTAAAGAGCATCT TAAGTGAGAGATCATGACAATCTT TGGCCACTCCAGGTTTTCTCATCT ACTACATGATCTGTTCCCAACAAT AAGCCATTGAAATTAAGGTCTCC AGAAGTTTTATCTGGGGTCTGTGA TTGAAAAGAAGGAAAATGAGATGA GAGACTGCCTACTAAGCTT (SEQ ID NO: 258)
CTP73A	Homo sapiens chromosome 11 clone RP11-546N8 map 11q	AC026201	CAAGCCCATCAATTAGTGTTCTTTT TATAGACATTACACACAACACATAT ATAGTGACACAAACACAAGATTCA ACACTTGTAAGATTTTTTATTTGCC AGTTTCTTAATTGGATTACTGGCAT CAGGGTGGAACTTTAGAGGAAG AGAGCCAGGTAGCATGCATTTCTA GGGCCTACTAAGCTT (SEQ ID NO: 259)
CTP73B	No significant match		CCCATAAGAAACATCTTTAAACAT TCAGAATACTCAGGATAATCAAGG CTAATATTCCTATAAATTCCTTACG TGTATTATGTACATTCAGAAAAGT GTAAATTACTCAAATATTATACTCA AAACCCCTTATAGTCTGCTAACTT GCATGTAGAAACATCTGAAGTAAC ATGCTGCCTACTAAGCTT (SEQ ID NO: 260)
CTP74A	No significant match		AAGCTTAGTAGGCATCAATTGGAT CCTTTCCTATGTTGAAATGGAAGA ATTAATGAGCTTACATTAATTAGTA TTGTAATGTGTAAAGGAAGCCCAG CAAATTTTTTGAACCTTGATGAT CCCAACGTATTTACCATTTGATGTT AAAGCAAAATAAATCACCATTTTTT TA (SEQ ID NO: 261)

CTP75C	No significant match	AAGCTTCTCAACGGCCTCCACCTC CTTTCTGCCCTCACAGCCTCCTGG CTCTGGCCCCAAAAAGTGATTCA TGTAATTATCATGGTTTTCTGCAT TAAAATGGCCATTTCTGG (SEQ ID NO: 262)
CTP76B	No significant match	AAGCTTTTACCGCCATCTTGGCTC CTGTGGAGGCCTGCTGGGACCAG GACTCCTAAAGCGACGANTTTTTN TGGAAGGCTTTGGTCCAAGGCCA TTTTTGCCGGCTATAAACGGGGTC TCCGGAACCAAAGGGAGCACACA GCTCTTCTTAAAATTGAAGGTGTTT ACGCCCAGAGATGAAACAGAATTCT ATTTGGGCAAGAGATGCGCTTATG TATATAAAGCAAAAGAACAACACA GTCACCTCTGGCGGCAAACCAAA CAAAACCAGNAGTCATCTGGGGA AAAGTAACTCTGGGCCCATGGAAA CAAGTGGCATGNGTTCCGTGCCA AATTCCGAAGCAATNTTCCTGCTA ATGCCATTGGACACAGAATCCGAG TGATGCTGTACCCCTCANAGGATT TAAACTAACGAANAANCAATAAA TAAATGTGGATTGCGNTCTTNGG (SEQ ID NO: 263)
CTP77D	No significant match	CAATTGGTTTAGTTTTATTTCAAAA TTGTACAAAATGGCCATAAGCGGC TATAAAAAATTTTCGTTTTTCGGAACA CGTGGAAATTCAGAAAGAACAACA AAGCAGGTTATCATTTACAGTGT AATGGAAAAGCTCTCTCTGAGGCA GGAATCACAACTCTTCCTTCTTCTT CCCCAGTCTCTCGTGGTCTCCTTC CCGGAGCGCTCGAATGAACTGG TAAACCCCGATTCCGTCCGATCGC (SEQ ID NO: 264)

CTP78B	Homo sapiens SON DNA binding protein (SON	XM_009738	CGATGTTGAGATCCAGATGACACA GGAAATTCCTTTTGTTAATGTTACCT GGCTTTTTGGTGGAGTTGGCTTTG CTGCAGCAATATTCAGATTGAAAA AAATGGGTTTGGGTTCACTGAGTT TAAAGGGATGATGATAAAAAGGAG GTTCTTCTTCCTCTTCATCCCGAA ACATGAGGCTTATTCACTATTACAT CATCATCTTCTTTACTCTGTGCGAT CTGTTTGCATTCTCAAGTTAGTTC TTCTATAGTNGCTCCTCCTGATTTT TTAGCAACTTTCTCTTCTATTGTGG GTGGAGGTGCACGCTTTTAGGTTT GGCGGGTAAAAGCTT (SEQ ID NO: 265)
CTP79B	No significant match		CATATATATTCTTTTTTATTTCTTGT TATACCTTCCCAAAACAGAGACAT TCAACAGTAGTTAGAATGGCCATC TCCAACATTTTAAAAAACTGCA CCCCCAATGGGTGAACAAAGTAA AGAGTAGTAACCTAGAGTTCAGCT GAGTAAGCCACTGTGGAGCCTTAA GTGGTGAGGTCTTCCAATTTTCA GTGATGTGTCTTCAACTTGTATCA TCATTTTAGCGGTAAAAGCTT (SEQ ID NO: 266)
CTP80A	Homo sapiens WDR4 gene for WD repeat protein	AB039887	CGCCGGCCAGAAAGCGTAATATT CTTTAAAGGAACCTTAACAAAACCT TACACTTAATAATGTAATCTCACC ATGTTCTAGTCAAAAATTTACTAC ACAGACTCAGTAGCGGTAAAAGCT T (SEQ ID NO: 267)
CTP81A	No significant match		CCAAAGAAGTGTTTATTAACATTTG GGGCCTCAGCGGGGCCAGAGAG GAAGTGGGTGCTAGAGGCTCCTG AGGCTCAGGGCAAGGCCTGCAAG ACAGATCCCATTGCTCAGGAGGC AGCCCAGATTGCAAATGGAAGACA GGCCATGGTAGCGGTAAAAGCTT (SEQ ID NO: 268)

CTP85D	Homo sapiens Rho-associated, coiled-coil containing protein kinase 1 (ROCK 1)	XM_008814	AAGCTTAACGAGGAGACAGAGGT CATGATTCTGAGATGATTGGAGAC CTTCAAGCTCGAATTACATCCTTA CAAGAGGAGGTGAAGCATCTCAA ACATAATCTTGAAGAGTGGAGGG AGAAAGGAAAGAAGCTCAGGACTT GCTTAATCACTCGGAAAAGGAAAA GAATAATTTAGAGATAGATTTAAAC TATAAGCTTAAATCATTACAACAAC GGCTAGAACAAGAGGTGAATGAA CATAAAGTAACCAAAGCTCGTTTA ACTGACAAACATCAATCTATTGAA GAAGCAAAGTCTGTTGCAATGTGT G (SEQ ID NO: 269)
CTP86F	Homo sapiens chromodomain helicase DNA binding protein 3 (CHD3)	NM_001272	AAGCTTAACGAGGACCCAAGAAG CAGAAGGAGAACAAGCCAGGAAA ACCCCGAAAACGCAAGAAGCTTG ACAGTGAGGAGGAATTTGGCTCT GAGCGAGATGAGTACCGGGAGAA GTCAGAGAGTGGAGGCAGCGAAT ATGGAACTGGACCAGGTCGGAAA CGGAGGCGGAAGCACAGGG (SEQ ID NO: 270)
CTP87B	Homo sapiens tetratricopeptide repeat domain 3 (TTC3)	XM_009760	AAGCTTAACGAGGCATGTGAAAAAT TATGAGCAGAGAAAACCTCAAGGG CTCAGAAGAGACCAGGGATCTGG AAGAAAAATTGAAAAGGAACCTTAG AAGAAAACAAGATCTCAAAGACAG AATTAGATTGGTTCCTTGAAGACT TGGAAAAGGAAATCAAGAAATGGC AACAGGAG (SEQ ID NO: 271)
CTP88A	Rattus norvegicus ribosomal protein L31 (Rpl31)	NM_022506	AAGCTTAACGAGGATGAAGATTCA CCAAACAAGCTCTACACGCTGGTT ACCTACGTACCTGTCACCACTCTC AAAAATCTACAGACTGTTAATGTG GATGAGAACTAATCGCTGATTGTC AAATAAAGGTATAAACTGCTCCA TG (SEQ ID NO: 272)
CTP89B	Homo sapiens genomic DNA, chromosome 8q23, clone: KB1935H12	AP003473	CTAAAGGGCCAGATAGTAGCTGT GGGCTGGGGTCTCAAACCTGTGTT GCCCACTACTCAACTCTGCCATTG TAATGTGAAAGTAGTCACAGACAA AATATAAAGAAATGAGTGTGACTG TGTTCCAATAAACTTTATTTACAA AAGCATTCACTGGGCTGGATTTGG CTTTTGGGCCATAATTAATCCCC TCTGGTAAATAATCACTATTTTAG CTGGATCATGAGTACGTGGAAGCT T (SEQ ID NO: 273)

CTP90A	Homo sapiens clone 24800	AF070622	ACAGGTTTCATCTGAATACATATTT ATTAGATAAATATTAGAGGTTGTCA CATCATCTAACTACATACAGCTTT GCAAGACTAGAAATCACAATTAGT TTTTTGACCAGTTTAAAGTATGAAA TGATTGCATTGTACATACGATGTA CAAAGACGATGATGGTTTCTGTGG GAGTTACTTCAGGCTGCACTGGTG GGTGTGTTTATGTGTGTACGTGGA AGCTT (SEQ ID NO: 274)
CTP92A	No significant match		GCACTAAATTCAAACCAATGACCT CCCATGTTCTAATTCTGATTGTTTA ATCCAAGTGGGAGGGTAAACGGG AGACTCTTTGGCCTGTCAGTGACA AAATGGTTTGTAAGAAAGAAAAAAT AAATACGATATACAAGTAAGTATAA CTAGCACTCAAGCTT (SEQ ID NO: 275)
CTP92C	Human DNA sequence from clone RP4-580N22 on chromosome 1q42.2-44	AL133286	GGGGTGTGAAGAGCCTTGTTTTG TCATATTACCAGAGTTGGTTTTCT GGTTCCTTCTCATTTGGGTAGGCT CTGTCAGAGAGAAGGTCTAGGGC TGAAGGCTGTTGTTTCAATTCTTT TGTCCTCAAGTGGTGTCCCTTGAT GTAGCACTCAAGCTT (SEQ ID NO: 276)
CTP93F	clone RP1-211D12 on chromosome 20q12-13.2	Z93016	AAGCTTGAGTGCTGTTGCTGATGT ACAACCTTAAAAATGTGAAGTTTGTA GCTTTAACTTTTTGTAATAAAAACT AATAACACTGGCTTAAGTGCTGAC TTGAAATGCTATTTTATAAAGTTTG GATGTAAATAATCAATCGAGGTCA GCAGTTTGTATATGTAGGAGACAT AGCTTCCTCCCTGCACCCCCCATT TTTTTAAATTTGAGGTGCTTCCTG TGTGTTTTTATGTTAGAATTGTTCT CCCTCCTTCCTACACGTGGTCACC TTTGTTTTAAATAAACTGTCCTTG G (SEQ ID NO: 277)
CTP94B	Homo sapiens clathrin, heavy polypeptide (Hc) (CLTC)	NM_008305	AAGCTTGAGTGCTGTATCCTGTGC TTTTTCTGTGGGACCATTCATTTC AGGAGCAAAGAGCACCATGATTC CAATCTTGTGTGTGTTTACTAACC CTTCCCTGAGGTTTGTGTATGTTG GATATTGTGGTGTTTTAGATCACT GAGTGTACAGAAGAGAGAAATTCA AACAAAATATTGCTGTTCTTCAGTT TTGTTTGTGGAATTTGAAATTACTC AAATTTAAATAAATTACTGGACTG TGG (SEQ ID NO: 278)

CTP99A	No significant match		AGCATATGTAAGATCTCTGGCTTG TAGAAGACAAGTTTATATAGCACT TAAAAAACCATTTGTTACATTAAAT GTCGAACTCAAACCTTTAAAGAGT ATAGAGAACTACAAAATGGAAAAA GGAAGCAGATATACGCTTTATGAG GAAATTGTGTTAATGATCTCTCCT CTAAAAAAGGACTCTTCCCTATTAT CATAATGACCACACTGCCCCGTCCT TAAACCACTGGTCGCTGACATTA TGCCGAAGCTT (SEQ ID NO: 279)
CTP100A	COX15 (yeast) homolog, cytochrome c oxidase assembly protein, clone MGC:8634	BC002382	AACATATAAAAACATTTATTCATA GGAATAATTGTGGCAGACACAATC CAGTGAAAGCAGCTCAATCCTGCT CAGTTAGGCTAGTTGAAGAACCAT ACTTTAAAAAAGAAAGGAAGACA GGCAAACAAGTGTTTTACAGGAGC AACAGACTTCAAGGTCACCCCCAC AAGACACCCTGCACAGCAGGGAC GGGGACAGGGAGGATGACCTCTT AGGGCCTGTGCCTTCGCAGAGGT GCTCGGCGGATGGGTGTGGTCTT CTTGGGTGTCTCCTCTTCTGTCAT CTATGCCGAAGCTT (SEQ ID NO: 280)
CTP103JJ	No significant match		AAGCTTCGGCATAGTTACTGTTTG ATTTTAAGTTTTTATATAGTTCTTA GTTTTGAAGAAATCCTTCAAGAAC AGTTTCTCTAAAGAGCATGTTTTAA TTAAATGCTAATTAATTACCTTTCT TAGTTTTCCAATTTAGTAGGCCAC TTTCAATGTCTATTAAAGTGAAATA AACCTTCTGAACTTAAACATTTTTA AATCGATTAATAAATTGTGTCAAAT (SEQ ID NO: 281)
CTP104I	No significant match		AAGCTTTTTTTTTTTTCAAACGGAT TTGTAAAACTGTATTTCTTACACT GTGCACAAACCTTTTATACTAAATA AATATCAAACCTACATTCTTCAGAAA GATGTTTCTAGTATTTTTCTTAGGT CACTTCCATATGTAGTATGTACAG TGAGACCACTTTTTAAAAAGCAAT GACTTAGGCAAACCAACCCTAATG GTTTGTTAGACCATTTCCCTGTTTT TAATTAATAATCATAGGGTTGTGC TTCTGTATAAAGTTTGTACATTTCA CAATGTAAATACTGACATT (SEQ ID NO: 282)

CTP109P	No significant match	<p>           ATGCAACCACACGGAATTTATTGA            ACATTTTCACAAGTGATTTTCATTAA            AGGAAGGCTTTTTTCGTGCCTATAT            TGGTTACCATCACTTTTGCCCCTA            TCACAATCTCATGGTGTAGTCCTT            GCATGTAGCAGGAACTCAACAAAT            GTCTGCTAAATTGACAGATGGAGC            CCCAGACGACCTAAAACCTTGCACT            TTAGAAGCACTTACTTCATCCTGA            GCTATTATGAATAAGGAACTCAAG            TGACTGTTAAAAGCATTCTACTGA            TGAGTTGGTAATGTTCTAAAGCAA            CATATCTCAAAGGAAAGGATATTG            AGTTTGTCTCCACCATAAAATCCT            ATTTTAAACAAAGGTACTACTTAA            AAATGGTCTTCCAAAGGCCTCAGC            AGAGGTTCTAAAGAGATGTGACAA            TATGCCGAAGCTT (SEQ ID NO:            283)         </p>
CTP110A	No significant match	<p>           AACATATAAAAACATTTATTCACATA            GGAATAATTGTGGCAGACACAATC            CAGTGAAAGCAGCTCAATCCTGCT            CAGTTAGGCTAGTTGAAGAACCAT            ACTTTAAAAAAGAAAGGAAGACA            GGCAAACAAGTGTTTACAGGAGC            AACAGACTTCAAGGTCACCCCCAC            AAGACACCCTGCACAGCAGGGAC            GGGGACAGGGAGGATGACCTCTT            AGGGCCTGTGCCTTCGCAGAGGT            GCTCGGCGGATGGGTGTGGTCTT            CTTGGGTGTCTCCTCTTCTGTCAT            CTATGCCGAAGCTT (SEQ ID NO:            284)         </p>
CTP111A	No significant match	<p>           AAGCTTCGGCATAAACGATCCATT            CTCCTCGGCCTCCCAAAGTGCTAA            GGTTCCAGGCGTGAACCACCATG            CCCAGCCTGTTCTTTTTTTATCTC            TAGGTGGTGCTCTCCAGCTGTAGT            AGAAATAGCATTTGTATTGGATCT            ATTTTTTAAATAGGGACTAAATAC            AGACCATTTTGTAGAGTGAAATG            CCAAACAAGAACGAGATTTTTCTC            TTGGCT (SEQ ID NO: 285)         </p>

CTP112B	Bos taurus peroxiredoxin 1 mRNA	AF305561	CTCAGTTCAAGTTTAATAGAAACA ACAAAAGATCAAAAGTGATGCCTT GCTACTACTGTACATATCAGTTGG CCTGCCCCATAGCACACCTCAGA CCATCCTCTCCAGAGGAAGAAAG GCTGGCCTCCCCAACCCCTGCAG GAAAGGGCGGTCTTGTCCCATAC CACATACCACATCTGCAGAGTCTA AAGTCTTGTATAAGCATGACAAT AGTACAAAAAAGATTCTGTTTTCA TGGATCCCCACTACAGCCCGGA CCTAAAATGGCGAGGCGCTCACTT CTGCTTAGAGAAATATTCTTTGCT CTTCTGGACATCAGGCTTGATGGT ATCACTGCCAGGCTTCCAGCCAG CTGGGCACACTTCCCCATGCTTGT CAGTAACTGGAAGGCCTGAACC AGTCGCAGTGTCTCATCCACAGAG CGACCAACAGGAAGGTCGTTTACA GTGATATGCCGAAGCTT (SEQ ID NO: 286)
CTP113A	Bos taurus ribosomal protein L30 mRNA	AF063243	CTAGTTAGAGTCAGATGTTTATTTA AAAATCTGATCCACTAAAACCTTAG CGTTTTCCACCAACTCGGGGTGC GGAAACCTTCACAGGCTTCACAAT CTTTTGCTTAGGTGCTGCCTTTGT GGGAGCCTTAGCAGCAGCCATTG CTGTCTTTTATAGTGCTTGCTTAG CCTTTTTTGCTTCCTTGGCAGCCC TGATGGCCTGTTCTCGTTGAGCCT TCCTAACTTCAGGTTTCTGATTCTT CTTAGCCATTATATCAGCAAGAGA TGCCCCAGTGATGGCCCTCTGGA ATTTGACTGCACGGCGGGTCTTT TCTTCTGAATTTCTTCCGACTGTC CCTTTTTGTGCTTTCTTCTGTAGAG GACAGTCCAGTTGATATGCCGAAG CTT (SEQ ID NO: 287)
CTP115B	Homo sapiens chromosome 17, clone hRPK.227_G_15	AC005899	CTAAGGTGATATAGAAGTGGACTA AGGGAGAGCCAAAGTTGGCAATC CCATTAATCTTACAACCTCCTAAAT TATGGCAATCACAATGCCTGCCTG AATGAATATAGCAAGTCCTAAAGG ATGTCTTCTGTGAGGGCAGATGGA AGTTTACTTCAACTCAACTCCATCT ACTATTTAAGGGAAGGATAAGTCA AAGTAAGAGTTAATTATTTCAACAT GGTTTGTTCCATTGATTTAACC ACACTATGGACCCCAAGCAGTT AGGTAAAAGGGATTTCTAGAAGC TTAATTATGCCGAAGCTT (SEQ ID NO: 288)



CTP116A	No significant match		AAAAGAGCATACTTATCAGTTGAA TGGGGATAGAGGTTTTAGATATTT TCCAAAATATTTATAAAACACTTCA TTGTTGAGAAATCACTTACAGAAT GGTGGCTATCAAACAAATAATTAT AAATTTTTAAAGCACAAGTCACAT GTTTTGTAACCTGTGTGAATTTA TTTTAGCTGTGACATTTAATTGAAA ACATCAGATATGTTTTGGAAAAGT CTTAATTTGAGAACAACCTGAAGGA AGTTAATCCAGAATCTATATGTAGT TAGCTATTAATGATGATGCTTTATT GACAGTATATTGCTAATATATTTCT TCATGAAATCTGAAGTTAAATAGTT TCGTTGTGGAATAGTGTCACCTGTA ACATTTCCCTTACGAAGTTCAATAA ACCAGCTTTGCCATAAAAAAAAAA GCTT (SEQ ID NO: 289)
CTP117B	Homo sapiens similar to J KAPPA-RECOMBINATION SIGNAL BINDING PROTEIN (RBP-J KAPPA) (M. musculus) (LOC82995),	XM_017740	AAGCTTTTTTTTTTTAAGCTGATGT CTTATGACTTTTTATGAGTCGAAAT TGTTTTGATTTTCAGCAAGTCAAATC TTGTAAAGGCCCGCGTATTTTTTTT AAGATTATATGAAGTCTGTGCAAA AGCTTTTAAAGAAATGCCTCTGC CTTGCCCTGCAATACATGCAATGTA CGTTAACTTCGTCTCTGTCCTCAG ACACTGTCCGATTTTACTTCCTTGT TTTCCTTTTTCTTAAT (SEQ ID NO: 290)
CTP119J	Homo sapiens SPR-2 mRNA for GT box binding protein	X68560 S52144	CAAAAGAAAAAAATAGTGTTTTAT TAACTACCACTGTTATAATACAC TTTAAACGTACAATAAGGTAGCCT TTAAATTTGAGGTGGTCTTAAGAA TAACAAATGAACAGAATTCCAAATT TTTGAAATAGGTGAACCTGCTGTAG TTATAGGTATACATTTAGGAAAATT GTATAGCTTTTACAAGACCAGCAA TGAAACTTTATTTGTACATTTTTTT AATAATTGAAAATATAAACAATAAT TAAAAAATAAAAGAAAATACAGCAT AATAAAAAACATACATTTCTCAATT AAATGTACTGGATACATATAAATTT AAAGGGAAGAAGCAAAAAAGGAA AATGGTTGATATTTAAGTGCAGAC TGACTACCTAGACGAAAAAAAAA AGCTT (SEQ ID NO: 291)

CTP121D	Human ribosomal protein L23a	U43701	AAGCTTCATTCCGACGACCCAAGA CCCTGCGTCTCCGAAGGCAGCCN AAATATCCTCGAAAGAGCGCCCC AGGAGAAACAAGCTTGATCACTAT GCCATCATCAAGTTCCCCTTAACT ACTGAGTCAGCCATGAAGAAAATA GAAGACAACAACACACTTGTGTTT ATTGTGGATGTCAAGGCCAATAAG CACCAGATCAAACAGGCTGTGAA GAAGCTCTATGACATTGATGTGGC CAAGGTCAACACCTTGATCAGGCC TGATGGAGAGAAGAAAGCATATGT TCGACTGGCTCCTGACTATGATGC TTTGGATGTTGCCAACAAAATTGG GATCATCTAACTGAGTCCAGCCG GCTATAAATCTAAATATAAATTTT TCACCAT (SEQ ID NO: 292)
CTP122I	Human mRNA for KIAA0033 gene	D26067	AAGCTTTTTTTTTTGGGACTGCTT TTGATTAATGCAGTTATCCAATTTA AGTGTTTTACTTTAACTCAAAGTA AAAAGAAATTCTCACATGGTAACT ACTCTATTTAAATGGTCCTGGAAA CATTAAACAGCTTTCTGCTGCTTG CTTAATGGTAATACCTTTGATTTCT TGATTCTAGGACATAGCTGATTTA TTAGGTAAAGTACTCTGTCAATTTT ACCTTCACCCAAGACTGTCATGTT TAAAATACTTTAGCTGTGGGAGAA ATCCTTGTCTGTTTTTATTGTGAGA GGAATGGTCATCCTCAAAGTCTGT TTCTACTACATAATGTGGACTAATT ATTTTTCTATCACAGTATTAACAA ATGGATTTATTGTAAATACAAAGAA GATATTAATATACTATTCTTATGTC (SEQ ID NO: 293)

CTP124B	No significant match		ATGGCAAAGCTGGTTTATTGAACT TCGTAAGGGAAATGTTACAGTGAC ACTATTCCACAACGAAATTATTTAA CTTCAAGATTTTCATGAAGAAATATAT TAGCAATATACTGTCAATAAAGCA TCATCATTAAATAGCTAACTACATAT AGATTCTGGATTAACTTCCTTCAG TTGTTCTCAAATTAAGACTTTTCCA AAACATATCTGATGTTTTCAATTAA ATGTCACAGCTAAAATAAATTCAC ACAGGAGTTACAAAACATGTGACT TGTGCTTTAAAAATTTATAATTATT TGTGTTGATAGCCACCATTCTGTAA GTGATTTCTCAACAATGAAGTGTT TTATAAATATTTTGGAAAAATCTA AAACCTCTATCCCCATTCAACTGA TAAGTATGCTCTTTTAAAAAAGCTT (SEQ ID NO: 294)
CTP126A	No significant match		AAAGAAAGTAATTATGGAAGTAA TTTTAAACATTGTAAATACTAAAT GATCCTTCAGTTGTAAGTTGATAT ATATTTGTAACCTTTGTGAAATTGT ATCCTTATGAAAAACCACTTTTGT GGAAGAGAGAATCCAAGTATGTAA TATTTAATTAAACAATCCATGTTT ACCCTATCCCTGCTCAATTAAACA GTGTATATAGGTCTAATAATAGCT CTGGAGCAACTTTTATCATGAGTC AAATATATTAACACATTGATGTCT TCTTGGTATATCTGAAAACAAGAG GTAGAAGTCCTGTTGAGAGTCTTT AAAATAAACTATTTTACAAATGTA AAAAAAAGCTT (SEQ ID NO: 295)
CTP129A	Homo sapiens, Similar to cadherin 1, type 1, E-cadherin (epithelial), clone MGC:1151	BC007583	AAGCTTCATTCCGACGACCCAAGA CCCTGCGTCTCCGAAGGCAGCCG AAATATCCTCGAAAGAGCGCCCCC AGGAGAAACAAGCTTGATCACTAT GCCATCATCAAGTTCCCCTTAAGT ACTGAGTCAGCCATGAAGAAAATA GAAGACAACAACACACTTGTGTTT ATTGTGGATGTCAAGGCCAATAAG CACCAGATCAAACAGGCTGTGAA GAAGCTCTATGACATTGATGTGGC CAAGGTCAACACCTTGATCAGGCC TGATGGAGAGAAGAAAGCATATGT TCGACTGGCTCCTGACTATGATGC TTTGGATGTTGCCAACAAATTGG GATCATCTAACTGAGTCCAGCCG GCTATAAATCTAAATATAAATTTT TCACCAT (SEQ ID NO: 296)

CTP131B	Homo sapiens similar to sperm autoantigenic protein 17	XM_006087	AAGCTTCATTCCGGGGACACATAG CCAGAGAGGAGGCAAAGAAAATG AAAACAAATAGTCTTCAAATGAG GAAAAAGAGGAAAAACAAGTGAGG ACACTGGTTTTACCTCCAGGAAAC ATGAAAAATAATCCAAATCCATCAA CCTTCTTATTAATGTCATTTCTTCC TGAGGAAGGAAGATTGATGTTGT GAAATAACATTTCGTTACTGTTGTG (SEQ ID NO: 297)
CTP133B	No significant match		CCAAAAAGAGCCATGCCCAGAGG GAAAGTTGGAAACGAAAGCCAAGT TTTCATTTAAAAGGAAACANTAAAG AGGTTAGCCAGAGAAACTTGAACC AAAGAAAAGACAGCACGCTGTTCA GAATGGTCAATAAGAGCCTAAAAAC GGTACCCTCGGAATGAAGCTT (SEQ ID NO: 298)
CTP134A	No significant match		CCAAAAAGAGCCATGCCCAGAGG GAAAGTTGGAAACGAAAGCCAAGT TTTCATTTAAAAGGAAACATTAAAG AGGTTAGCCAGAGAAACTTGAACC AAAGAAAAGACAGCACGCTGTTCA GAATGGTCAATAAGAGCCTAAAAAC GGTACCCTCGGAATGAAGCTT (SEQ ID NO: 299)
CTP135A	Homo sapiens cDNA FLJ11508 fis, clone HEMBA1002162	AK021570	CCATCAAATGTAATTTATTTAAATA ACAATTCAATTGCATGTAAAGTAAA CCAGTTGTAGCAATATAAAAATAC AGAATTTTGAGAAAATCTGGCAAA TTAAACCTGTATCTAAATGCAGCA TATTCTGTGATACTACGGAATGAA GCTT (SEQ ID NO: 300)
CTP143B	No significant match		AAGATTTCAAAGAGTGAGCAAGTG CATTAGCAGGGCAGAGAGAGAGG CAGCAGCAGACTCCCTGCTGAGC TGGGAGCCAACTTGGGACTCGAT GCCGGGACCCCAGGATCATTACC CGAAGCTT (SEQ ID NO: 301)

CTP144B	No significant match		GGGTAAATCCGTCCAGTTTACTGT AAATATGCCTTTGACAACTGGTA ACTCATGTCCCATCCCAGTCCCGA GTAAGTGGACCAGGGAACTCCAG CCACAGTTGAGGGAAGGCCACCT GTTGGCTCTGGGGCAGCAGGTCA TCCAGTGGGCTTCAGGAGTCACC AGGCCTCTGACCAGTTCCCTCCCA CCAAGCAGTTTCAGAGTTGTCCGC CAAGTCTATTTACACCTCTCGTG TATGCCGAAGCTT (SEQ ID NO: 302)
CTP145B	No significant match		GGACTGATAATAATAGGATTTTATT TCTAAAATTTATCTTAGAGCTTTCA AAGAGTATAACACACAGATCTTTA CCACCACACCCCCCTTGCTATAC AGGAAACAACCAAGTTGTGAGAAC ATTTATCATGCACAGACACATCAG GGCTTGCAGGTGCTACACAGGAA TCACAAATGCTGTTCCACATCATG TCTTCTGTTATGCCGAAGCTT (SEQ ID NO: 303)
CTP148B	Homo sapiens serine-threonine protein kinase (MNBH)	AF108830	AGCATATGTAAGATCTCTGGCTTG TAGAAGACAAGTTTATATAGCACT TAAAAAACCATTTGTTACATTAAAT GTGGAAGTCAAACCTTTTAAAGAGT ATAGAGAACTACAAAATGGAAAAA GGAAGCAGATATACGCTTTATGAG GAAATTGTGTTAATGATCTCTCCT CTAAAAAAGGACTCTTCCCTATTAT CATAATGACCACACTGCCCGTCCT TAAAACCACTGGTCGCTGACATTA TGCCGAAGCTT (SEQ ID NO: 304)
CTP149B	No significant match		AGGAAGAATAAAAAACATATAAAAA CATTTATTCACTAGGAATAATTGTG GCAGACACAATCCAGTGAAAGCA GCTCAATCCTGCTCAGTTAGGCTA GTTGAAGAACCATACTTTAAAAAA AGAAAGGAAGACAGGCAAACAAG TGTTTTACAGGAGCAACAGACTTC AAGGTCACCCCCACAAGACACCC TGCACAGCAGGGACGGGGACAGG GAGGATGACCTCTTAGGGCCTGT GCCTTCGCAGAGGTGCTCGGCGG ATGGGTGTGGTCTTCTTGGGTGTC TCCTCTTCTGTCATCTATGCCGAA GCTT (SEQ ID NO: 305)

CTP150A	No significant match		AGCATATGTAAGATCTCTGGCTTG TAGAAGACAAGTTTACATAGCACT TAAAAAACCATTTGTTACATTAAAT GTCGAACTCAAACCTTTTAAAGAGT ATAGAGAACTACAAAATGGAAAAA GGAAGCAGATATACGCTTTATGAG GAAATTGTGTTAATGATCTCTCCT CTAAAAAAGGACTCTTCCCTATTAT CATAATGACCACACTGCCCGTCCT TAAAACCACTGGTCGCTGACATTA TGCCGAAGCTT (SEQ ID NO: 306)
CTP150C	Canis familiaris mitochondrion	CFU96639	AGGATCCTCATCAATAAATAGATA CATAACAAGATAGCCAGACTACAT CAACAAAGTGTCATATCATGCAG CGGCTTCAAATCCGAAGTGGTGG TTTGATGTGAAGTGGTAGTATAGC TGTCGGAGGAAGCACACGATGAG GAATGTAGAGCCAATAATTACGTG TAATCCGTGAAATCCAGTGGCTAT AAAAAAGGTAGATCCGTATACCCC ATCGGAGATTGTAAAGATGTCTC ATAGTATGCCGAAGCTT (SEQ ID NO: 307)
CTP154A	No significant match		AGCATATGTAAGATCTCTGGCTTG TAGAAGACAAGTTTATATAGCACT TAAAAAACCATTTGTTACATTAAAT GTCGAACTCAAACCTTTTAAAGAGT ATAGAGAACTACAAAATGGAAAAA GGAAGCAGATATACGCTTTATGAG GAAATTGTGTTAATGATCTCTCCT CTAAAAAAGGACTCTTCCCTATTAT CATAATGACCACACTGCCCGTCCT TAAAACCACTGGTCGCTGACATTA TGCCGAAGCTT (SEQ ID NO: 308)
CTP156J	Human DNA sequence from clone RP5-975D15 on chromosome 1p31.3-32.2	AL136120	AAGCTTCGGGTAACCACTGCTAAT AACTAAAATACTCTAAGTTGGAATA ATCGACTCCGACGCTTTATTTTTC CAAGTTGCCTTTTCTTTAAACACC TTTTCTGATTTAATACGGAATAAC GGTCTTCTTTTCCACTCGATAACT ATGGTGTCTCTTTGGGTTACTGCT TAAGAAAAGTTGGTTTGGGCCATT TCG (SEQ ID NO: 309)

CTP161B	Canis familiaris TCTA gene, AMT gene, DAG1 gene and BSN gene	AJ012166	AAGCTTTTTTTTTTGAAGATACAA GTTAGAGTTCAATCAGTACCAAAG GTAAGGAAAAATTAACCTCTATGTA CACAGTCGAGTTTTATCCTGCTTA AAATTGTCAAGTAGAGAAAAATTCT GAAAATATTTATGAAAAAGCTATTCT TCATGCTGGCAGCAATGGTTAAAA TAAAGATATTTCTTTTATTAATAAAA GAAAAAGCCTAAAAACAACCTTTA AATAATCAAGTTGCTGTGAAGTGA AAGGGTTTGAAAGTGATGAACTG AAGTTAAAAGTTCTCTATATGTGTG TTTTACTTTAAGCAAATTAGACATA GTGAATAAAATTTGAATTTTCAGAC AAATTATTTGCTTTTTTTTTTATTTTA TTTATTTATTCATGAGAGACACAGA GAGAGAGAGGCAGAGACACAGGC AGAGGGAGAAGCAGGCTCCACGC AGGGAGCCCAATGTGGGACTCGA TCTGGGAACTCCGGGATCAAGCC CTGAGCTGAAGGTAGACACTCAAC CGCTGAGCCACCCAGGTGCCCTG ATTTGCTTTTTAAAGAAGTCTCCCC CTTCC (SEQ ID NO: 310)
CTP164A	No significant match		AAGCTTCGGCATAACGGTGTGAGG TTACAGTCCAGTTTTGTGTGCTTTA CTACACGGTTTGTTACAGGACTT CTGTGCATTGTAAACATAAACAG CATGGAAAAGGTAAATACCTGTG TGCAGATTGTAAGATCTGGTCCGG ACTTGCTGTGTATATTGTAACGTTA AGTGAAAAAGAACCCCCCTTTGTA TCATAGTCATGCGGTCTTATGTAT GATAAACAGTTGAATAATTTGTCCT CAGACTCTTTACTATGCTTTTTTAA AATTAAGAAAAATGTAAATATAGTA AAAATCTTCCTATGCAATTAACCTG G (SEQ ID NO: 311)

CTP178B	Homo sapiens mRNA for KIAA1524 protein	AB040957	AATAAGGCTTCATCTAGATTTTTTT CTGTGAACTGAAGTTGGTCAAGGA TTGTAGGCAGCAGAAGGCTCACA AAACGGTCAGTTGAGGAACAGTTA GCAGTATCTGCAACATCCTCAAA ATTTCTTGAACAACTCTAAGGCT AGAAGAGAACAGTTTTCTGATCTG TCCAGAGGTTGGTTTGACCAACGC AGTAGAGCCACAGTAGGTTCTAAA CATTTAGAACGGCTTCCCAGAATG GTGTTGCCAGATGGAGACTGTTCA AATATCATCTGAGTGAGCACGTGG CGCAGCTGAGTCACTGAACAGAA GGCAAGAAGTAATTCTAAACCTT TGAAGAAGAATCAGGATCCTTTCC ATTGAGAAGACCTAATACTTGACT AAGACATGAAGAAAAGTGCTCATA CCTGGTAAGCTT (SEQ ID NO: 312)
CTP179K	No significant match		AAGCTTACCAGGTAGAGGGACTG TTGGAGGTATGGACGCACACAGG AGGGCCAGGCCAAGGCACGAGTT TTTCAGTGAAGGGGGTAAAGCATC ACAATTTAAATGTTTGCAATTAA CTGGTTTGTTAAATATC (SEQ ID NO: 313)
CTP185C	No significant match		CAGCGAAGAGGCATTAAAGATTCA TGCCATAAGTTTATTTACAAACATG TTGTGTATGTTGAATTCAGAGATT GATCCATTTTTTCAGAGACTGCACC TCTTAAATGTTTCCTTTTCACATCT GTTTAGTGGATCAAAAGCTT (SEQ ID NO: 314)
CTP197A	No significant match		ATGGTGTGTGTGTGGGTTCAAATA GTTTATTCACCTCTGTAGTGGAAA ACAAGGAGAAATAAAATCTGCTT ACAATGGCCAAAATTTATGGAGAA GCCCTAAAGTTGCTTTCCCAAAT CACAAATCTGATTCAAGAGAAGGA AAAAAATGATGAAAAACATCTCAT CACACAAAACCTCAGTGTGGTGTCT CTGATAGTCATCAGCCAGCAGAAG CTT (SEQ ID NO: 315)



CTP201B	Homo sapiens, exostoses (multiple) 1, clone MGC:2129	BC001174	ATCATTTCAAAAATAATCATTTAAT GTTCCATAATTAAGTGTACACGA CCTAGTCTTGGGACATAGAAGCCA GTGAGGTGAGTTTGGAGCAGTCC CAGGAGCCAGGAGTCGAGTTTTC ATTGGCCTTTTTTTTCTTTTTCTTT TTGTCATTCTGTTTCATCTAAGATTA TTTGGATACTTGGCACAATCTGGC TCTGCTGCTAAGCTT (SEQ ID NO: 316)
CTP202C	No significant match		AGAAAAAAAAATTGATAATTAGGTG CAGATAGAAAAATATGAATTAGAAG AGGTTAATTCAAGTGATCAGCCTG AAAGTTCAGCTTCATTAGCTTTGT GGTAAATCCACCACTTCAGATAGT AACTAAAGTAAATTTTAAATTTTCAT AAGAATAAAGTAATCCCTGAAAAG AATTCACCTTTTTTCCCAGAAGAAG CTTATAATTAAGGCTT (SEQ ID NO: 317)
CTP205D	Homo sapiens similar to J KAPPA-RECOMBINATION SIGNAL BINDING PROTEIN	XM_011187	ATTAAGAAAAAGGAAAGCAAGGAA GTAAATACGGACAGTGTCTGAGAA CAGAGACGAAGTTAACGTACATTG CATGTATTGCAGGCAAGGCAGAG GCATTTCTTTTTAAAGCTTTTGCAC AGACTTCATATAATCTTAAAAAAA TACGCGGGCCTTTACAAGATTTGA CTTGCTGAAATCAAAACAATTTCC ACTCATAAAAAGTCATAAGACATC AGCTT (SEQ ID NO: 318)
CTP206A	Homo sapiens fatty acid desaturase 1 (FADS1)	NM_013402	CAGGCTGGTGTATAGGTGAAGAT AGGCATCTCTTACAGATGGGGGT GGGGGCTGTTGTTACTGGTGAAG ATAGGCATCTAGCCAGAGCTGCC CAGACTCCTTCAGTGAGTAGATAA TGTCGGCGAAGGCTGAGAGCAGG GGCTTGGACTGGTACTCTATGCCA TGCTTGGCACACAGGGACTGCAC CAGGGGAGCCACTTTATGGTAATT GTGTCGAGGCATCGTAAGCTT (SEQ ID NO: 319)
CTP208B	No significant match		CTAGAGGAAGTGCTTTTTATTTTAA GATCAACCAAACATATTTAATATAA AAACCTTTTAAATATACAAACTGTAA TCACAATTGCATCCACGTAGCAGC GAGGGAATGGGGTGTGTCAGGAA GCTT (SEQ ID NO: 320)

CTP215B	No significant match		AAGCTTAGAGGCAGTAAACAGGA GCGTCCCCAAGAAAAAGAGGAAA TTCTCTTCTAAGGAGGAGCCACTT AGCAGTGGACCTGAAGAGGCTGC TGGCAACAAGAGCGGCAGCTCCA AGAAAAAGAAAAAGCTCCAGAAGC TATCCCAGGAAGATTAGAATGGAC ATTTTACCAGGTGGGGCAAACCCA CATGATTCCAAACCCACCCTTATA TCCCAATAAAAACAAATTCACAGG (SEQ ID NO: 321)
CTP216A	Canis familiaris heat-shock protein (HSP27)	U19368	AGGCAGTTGCTTTGAACTTTATTT GAGAAAAACAAAAGGTAAATGTAT CAAAAGAGCATAACAGGTTAGTGTG CAGGGACGGTCAGTGATGGCTAC TGAGGTGAGGATGTGGGCTAAGC AGGGCTAAGGCCTTTACTTGGCTC CAGACTGCTCCGACTTTCCAGCTT CTGGGCCCCCAATCTGGGCACGT GCCTCTAAGCTT (SEQ ID NO: 322)
CTP222D	No significant match		AAGCTTACCAGGTGAAGAGTGGG GTTGTCATGACCTTGGCTATGACG CCCAGCATTTCGAGGTGGCTCCC TCTATTCTTTACTTTGGGCATCATA GAAAACGTGTCTCTGGGGGATTAA TCTTAGAGAAAAATAAAGCCTTTCT GCTG (SEQ ID NO: 323)
CTP300B	Homo sapiens utrophin (homologous to dystrophin) (UTRN),	NM_007124	CCAAGGTTCCACCAAGCTTTCAACA AGCACTGTTCTTCTAATAATTCCTG CCACAATATATTAATTTCTTGTAGC CTACTCCAACGTTCTCTGTCCAA CGGCACACTGCTGTCCAGCGTTC ACCAAGCTT (SEQ ID NO: 324)
CTP304B	Homo sapiens unknown mRNA	XM_002211	AAGCTTAGCAGCACAGCACACCAA CATATACAAACACCGAGTGACTAC AGTACATGCCGAGGTAAGAAAAGT ACATTCGGGGAGACTATCACTGAC ACTCAAGCCATTTTTATTTCCAATA TGTTTTGCTTTCACCTTTCCAGT GCCAAAAAAAAAAAAACCTAGTCA CAAATTGGAGTAAATAAGAATCGG TGCCAGTTGACCT (SEQ ID NO: 325)

CTP306B	No significant match	AAGCTTCTGCTGGTATGGAAAGCC TTCAAGGAAGAGGGTAATGAGGG GGAAGAAGTGCTGTGCCAAAGTG ACAGCATTTCAGTGAGGAATAAAGA AAGGAGCTCAGTGGTAGCAGGAT GTTGAGCTTCCAAGAAAATCTGGT GGTGGTGAGAAAGTGGCTGCTGT GCACTGCAAGGAAACAGAGCGAT TAAAGAAAAGAGATGTGACAGGGTA GGTGGAAAGAGATAGCCAGAAGTT AGAAATGGGTTACACTGAAGAAGT AAATTATTTGATTAAACAATAAGTA AATATACTGGGGATAACAAAAGCC TGATTTCTCCACTGTCTCAGAAGG GATTTGCAAGTATGG (SEQ ID NO: 326)
CTP308KK	No significant match	AAGCTTTCTCTGGATGAACAGTTA AATGGAACCTGGAAACCTCTTCCT GGGATTATTCCTTAAGCAAGGCAG TGTCAAAGGCAACCCTCCCAGCAA GACTTCAGAAAACAGCTGGCAGAA CTACAGGATCTGGTGTCTGGTGTG TAAAATACTCTCCTCCCTGTTCAA TGATTCAGAACATGTGCAAAGTGT GCTAGCTTTTCATCACATATACATA CAGCATTATGTATCAAGTTACCCT GTTCAAACAAGGAGCAGGCTTCCT CTTTTTGACTTAAATGACATGAAGT GAGAAAAAAAATGAGAATAACCN CNNGGGAATTATAGAGGGTTATAA TTCTATCCCNACTATTTCAATAAAA GCCATCACGGG (SEQ ID NO: 327)
CTP309A	No significant match	AAGCTTTCTCTGGCTTTCCGAAGG TAAACTGTTGCCGAAGTTGCTGC GTTACAAGAGCGTATCCCAGAAAC CATAAGGCTACAACGCCGAAATTG GGAGCTACATCAGTTTGAATCGAT TCAAGAAGGTCATCGCTCAGGCC GTCCCAATACACTGACCTCAAAC ATCAGGCTCAAATCTTAGAGTGGG TCAACACAAGCCCACTCAATGCAG AACAAATCCGAGTCAAACGTCATG AAAAACACGGTGTGTCCGTGTCTG TTGAAACTCTTCGCAAGTTTTTGC GAGATTCAGGCATGGTCTTCAAAC GCACCCGCCACAGCTTG (SEQ ID NO: 328)

Please substitute **Table 8** with **Table 8** amended as follows:

Table 8			
Band #	Genbank Gene Name	Accession	Sequence
CTP1D	No significant match		GACTGAGACCATTATTTCNAG ACACGCAGCTGACCAAGGAG TGAGGGAGGGACCAGGTGTG CAAGCTAATAAATAGAGGAGG GGGAGACTTCCTGGAGCTGT AGCCATTCACTCTTCATTCTT CTCAGGCATGAAGGCATCTCT TTTCTGACCAAAGCTT (SEQ ID NO: 329)
CTP1G	No significant match		AAGCTTTGGTCAGCAATTATA TTAGTTTGCATTTTAGTGACA GGTGTAAAGAGAAAGGCCCT TCTTCCCTTACTGGGACAAAT CTAGAAATCTTACACAGATGT GCAAATAAAGCTCGCGTGGT GTTC (SEQ ID NO: 330)
CTP4B	No significant match		GAGCAGCAGTGAGCAAAACC CACGAAGTTGTTTTAAGGTTA CAGCTATGAATAAACATTGTC CAAACAATGAAGATTTAGGGC TGAAGAACGAGCGTATGTCTA CAGTCGAAGCTT (SEQ ID NO: 331)
CTP7B	No significant match		CAGGTGCAAGAGGTTTGTGTTG GGAGGTAATCCTAGAAACCAC AGAAGGGGGTGGGGATAGGA GGGATGGCAGGAAAACCACT AAGAACTGTGTTATTGAGAAG GTTATCACTGTGGACAACCTGG CACAGAATACACTTCAGAGCT GTCGCCCTGAGGGACAATGA CGCCAAGGTCTTTTCTCTAA GTCCTGTTTCTTATAGGCCGA GGGTGGCTCCTGGGAGCAGT AACTGCCAACAGTCGAAGCTT (SEQ ID NO: 332)

CTP8A	No significant match	AAGCTTGATTGCCCCATACCTG AGCCATTGATATATTTGAAAAT TATGGCACAAATGGAAGAGAA CCACATTTGAAAAGCTTCCAG CCTTTCAACAGAAGATAACTC TTCTTGTTTTGCAGATTGAGC AGATAATTTCTTTGAAGGTG ATAGTTTCCTAAATTGGATAAA ACCGTGGCTGCCATTATATTC ACAGAAAATAAAATGAAAAC TCAGTTAATTGTGGATTTG (SEQ ID NO: 333)
CTP17G	No significant match	CATATATATTCTTTTTATTTCT TGTTATACCTTCCCAAAACAG AGACATTCAACAGTAGTTAGA ATGGCCATCTCCCAACATTTT AAAAAACTGCACCCCCCAAT GGGTGAACAAAGTAAAGAGTA GTAACCTAGAGTTCAGCTGAG TAAGCCACTGTGGAGCCTTAA GTGGTGAGGTCTTCCAATTC AGAGTGATGTGTCTTCAACTT GTATCATCATTTTAGCGGTAA AAGCTT (SEQ ID NO: 334)
CTP18B	No significant match	CCAAAGAAGTGTTTATTAACA TTTGGGGCCTCAGCGGGGCC AGAGAGGAAGTGGGTGCTAG AGGCTCCTGAGGCTCAGGGC AAGGCCTGCAAGACAGATCC CATTGCTCAGGAGGCAGCCC AGATTGCAAATGGAAGACAG G (SEQ ID NO: 335)
CTP25D	No significant match	AAGCTTGCACCATATATATAA CTCTTGGGCAGAGGGTCTGG CATAcataAGTAGATACTCAG AAATATCTGTTGGATTGTGTT GATTTAATTATTTTTGTGTTGC TTCTTTTAAAGATGAGCACTTT CTATTAGATATTTTTTGATCA AAAAAAGATATTTTTTGATC ATACAGATTTAAGCAGGATTT TTATTAATTCGTTTCTCTTCCT GGTTGG (SEQ ID NO: 336)
CTP31A	No significant match	GGGGCAGATAAAAACACTTAA TGTAATAATTTACCCTCTCAGA AAAATTTCCAGTATGCTATAC GGTATCACTAACTATAGTCAC TATAGTATACAGTAGATCCCT AGGATTTATTCATGATGTACA GTCGAAGCTT (SEQ ID NO: 337)

CTP36A	No significant match	CAAGTTTTACCATTTGTTTTAAT TATTGAAACAAAATTAACGTAA GTAGAATCATGTGCAACAGTG TCTCTAACATATGGAAGAGGT AAATATGAATTTTATACAATAA GGTATATTATCCACTGTAACA AATTTCCAATAATTTGGCATT ATCTTTACAAAAATGTCTCCC AAATTCTAAGCAAAGTATGCA AATTGGAGATTAACCTCTAAAC AGGCATAATTATCTTCTTATCC AGTTTTTCTGAAGAGACTGAA GAGTTCAGGTCTGACCAAAG CTT (SEQ ID NO: 338)
CTP47G	No significant match	AAGCTTGCACCATACTCCTCC TCTACATATGCTCCCAAATTA CCTTCTAAAAAGGCTGTATTA ATTTACTTTTACCAGTAGTATT ATGAGAGTGCCCATGTCCCTT AGCCTTTTAAAATTCACATGA GCAATCTTTAAATCATGTACTA AATCTTATAGGCAAAGAATAG GGCCTTGCCCCTGCCCTGT T (SEQ ID NO: 339)
CTP50A	No significant match	ATTCCTTTTCCAAGGACCTCT CTTCTATGTGATCACTGAGTA AGTTCAGTCACTCCCATCATC TCTAGATTGGAGATTTCCAAA TTTATGGCCTTTCCTAACTTTG AAGTCCTTATTTCTAACTGCC TACTAAGCTT (SEQ ID NO: 340)
CTP52B	No significant match	AAGCTTAGTAGGCAATAATAG AGAAGTAGAAATTGAATGTGG AACATTAACCATTAATAATCAT ACTTTTGAATGTGCTGAGGTC ATGAATTGTTTTACCTTCTTT GTAATTTGTGTTTTTCAGATT TCTGTAGTTAGCATATATTCTA TAATCAGAAAAAGATGCTTCA AGTTTTTTGCAGATTTTACAG AATTTTGTTT (SEQ ID NO: 341)

CTP53A	No significant match	AAACAAAATTCTGTGAAATCT GCAAAAAACTTGAAGCATCTT TTTCTGATTATAGAATATCTGC TAACTACAGAAAATCTGAAAA ACACAAATTACAAAGAAGATA AAAACAATTCATGACCTCAGC ACATTCAAAAGTATGATTTT ATGGTTAATGTTCCACATTCA ATTTCTACTTCTCTATTATTGC CTACTAAGCTT (SEQ ID NO: 342)
CTP58A	No significant match	AATTGTCACGAACAGGGCTGA CTGACACTGCAGTGTGTCCTT GTTTGTTGATCCCTGATCTAG GCCTCGGCTTTTCAAACGCA GTTGATCAAACGGGATATGC TTCGGCTGAATCTGCTCTCTG GTGCTTCTCTTTAATCGTTTT TCCTTAAATGGGTTACTTTCTT ACTAGGAAAAAAAAAATGTT CACCTCTGGAATTAACGTTGA GAAGCTT (SEQ ID NO: 343)
CTP62A	No significant match	AAGCTTCGACTGTCGCATCAA TGAATGTTTTAAGTAATAACTT TGCTGGTTATCAGCTTGATGG TGCATTAATTTTATGGCTCATT TCCTTTATTTTGACCATTGTCTG GATTCTTCATTTTATATTGGAC GATCCCCAATCGAACGGTAC CAATTTTTTCAGCTGTGATTG CGGCATGTTTCAACGCGACC GTTTTTGAAATTTTAAACATT TATTTGGCTGGGTCATGAGTA ATTTCAACAGCTATGAAATCG TTTATGGTGCTTTTGCAGCAG TTCCTATTTTCTACTTTGGAT CTATCTGTCTTGGAATATCATT TTATTGGGTGTAGAAGTGAGT TATGCACTCACCGCCTTCAT TCTGGT (SEQ ID NO: 344)

CTP63A	No significant match	AGAATCAAGCCACCAGGTGTT TATTTTTGCACTATAAATAGAG TTCCCTAGTCCCATTTTGTTA CATAATATATGAGATAACAGA GAACCTAAAATTCATTTGGTG AAAATCAAGTGTGTAGTATAC CTAAATACCAATGAGCTAGTA AGACTTGTAAGGCACTGAAGC TAAGGCTAACAGCAACAGAGT CCTTTATGAAAATAATTTTCAGA ACCACAACGCATTCTCTGATG GTGCATTCCCCTGGGACAGT CGAAGCTT (SEQ ID NO: 345)
CTP64B	No significant match	CATCGCAGACATTTATTTTAG TTTTGTAAATTTCAAATATTCA TTAACCTCTTGTATCAGATTTA AGGCAGAGAAAAGATACACG CCCCTGGTTAACTGAACCGG GGTTTAGATAGTGTAGTCCAC CCTGGGTTCCACCAGGGAGA CCTCACCCGAGATGACAGGT CCGGTTGCTGGTGCACAGTC GAAGCTT (SEQ ID NO: 346)
CTP70A	No significant match	AAGCTTAGTAGGCACGCAATA AATAGGAGAATGAATCAGAGT CCTCCAACGCGTCCTCCCTAA TGTCCCTTTGAGCTGCCTCCT CTTCCACTCTGCCTCAGCTTG TCCATGTCACTTCGCTCCAGA GCAGCCGCAAGAGCATCTTA ACACCTTGTGGCCTGAACTCT CTCCCATCCTCCACTGTACAG TGATATGACTGAAACCTCATT TAACCTTTTAGAACTACCAGG AGGAGGTTCCCAAGGATCCC AGG (SEQ ID NO: 347)
CTP72B	No significant match	CCATTTTTGCTCTTAAAGAGC ATCTTAAGTGAGAGATCATGA CAATCTTTGGCCACTCCAGGT TTTCTCATCTACTACATGATCT GTTCCCAACAATAAGCCATTG AAATTAAAGGTCTCCAGAAGT TTTATCTGGGGTCTGTGATTG AAAAGAAGGAAAATGAGATGA GAGACTGCCTACTAAGCTT (SEQ ID NO: 348)



CTP73B	No significant match	<p>CCCATAAGAAACATCTTTAAA  ACATTCAGAATACTCAGGATA  ATCAAGGCTAATATTCCTATA  AATTCCTTACGTGTATTATGTA  CATTCAGAAAAAGTGTAATTA  CTCAAATATTATACTCAAAACC  CCTTATAGTCTGCTAACTTGC  ATGTAGAAACATCTGAAGTAA  CATGCTGCCTACTAAGCTT  (SEQ ID NO: 349)</p>
CTP74A	No significant match	<p>AAGCTTAGTAGGCATCAATTG  GATCCTTTCCTATGTTGAAAT  GGAAGAATTAATGAGCTTACA  TTAATTAGTATTGTAATGTGTA  AAGGAAGCCCAGCAAAATTTT  TTGAAAACCTTGATGATCCCAA  CGTATTTACCATTGTATGTTAA  AGCAAAATAAATCACCATTTTT  TTA (SEQ ID NO: 350)</p>
CTP75C	No significant match	<p>AAGCTTCTCAACGGCCTCCAC  CTCCTTTCTGCCCTCACAGCC  TCCTGGCTCTGGCCCAAAAA  GTGATTCATTTGTAAATTATCA  TGGTTTTCTGCATTAATAATGG  CCATTTCTGG (SEQ ID NO:  351)</p>
CTP76B	No significant match	<p>AAGCTTTTACCGCCATCTTGG  CTCCTGTGGAGGCCTGCTGG  GACCAGGACTCCTAAAGCGA  CGANTTTTTNTGGAAGGCTTT  GGTCCAAGGCCATTTTTGCCG  GCTATAAACGGGGTCTCCGG  AACCAAAGGGAGCACACAGC  TCTTCTTAAAATTGAAGGTGTT  TACGCCCAGATGAAACAGA  ATTCTATTTGGGCAAGAGATG  CGCTTATGTATATAAAGCAAA  AGAACAACACAGTCACTCCTG  GCGGCAAACCAACAAAACC  AGNAGTCATCTGGGGAAAAG  TAACTCTGGGCCCAGTGGAAAC  AAGTGGCATGNGTTCCGTGC  CAAATTCCGAAGCAATNTTCC  TGCTAATGCCATTGGACACAG  AATCCGAGTGATGCTGTACCC  CTCANAGGATTTAAACTAAC  GAANAANCAATAAATAAATGT  GGATTTGCGNTCTTNGG (SEQ  ID NO: 352)</p>

CTP77D	No significant match	CAATTGGTTTAGTTTTATTTCA AAATTGTACAAAATGGCCATA AGCGGCTATAAAAAATTTTCGT TTTCGGAACACGTGGAAATTC AGAAAGAACAACAAAGCAGGT TATCATTTACAGTGTAAATGG AAAAGCTCTCTCTGAGGCAG GAATCACAACCTCTTCTTCTT CTTCCCCAGTCTCTCGTGGTC TCCTTCCCGAGCGCTCGAA TGAAACTGGTAAACCCCGATT CCGTCCGATCGC (SEQ ID NO: 353)
CTP79B	No significant match	CATATATATTCTTTTTATTTCT TGTTATACCTTCCCAAACAG AGACATTCAACAGTAGTTAGA ATGGCCATCTCCCAACATTTT AAAAAACTGCACCCCCCAAT GGGTGAACAAAGTAAAGAGTA GTAACCTAGAGTTCAGCTGAG TAAGCCACTGTGGAGCCTTAA GTGGTGAGGTCTTCCAATTTT AGAGTGATGTGTCTTCAACTT GTATCATCATTTTAGCGGTAA AAGCTT (SEQ ID NO: 354)
CTP81A	No significant match	CCAAAGAAGTGTTTATTAACA TTTGGGGCCTCAGCGGGGCC AGAGAGGAAGTGGGTGCTAG AGGCTCCTGAGGCTCAGGGC AAGGCCTGCAAGACAGATCC CATTGCTCAGGAGGCAGCCC AGATTGCAAATGGAAGACAG GCCATGGTAGCGGTAAAAGC TT (SEQ ID NO: 355)
CTP92A	No significant match	GCACTAAATTCAAACCAATGA CCTCCCATGTTCTAATTCTGA TTGTTTAATCCAACCTGGGAGG GTAAACGGGAGACTCTTTGG CCTGTCAGTGACAAAATGGTT TGTAAGAAAGAAAAATAAATA CGATATACAAGTAAGTATAAC TAGCACTCAAGCTT (SEQ ID NO: 356)

CTP99A	No significant match	AGCATATGTAAGATCTCTGGC TTGTAGAAGACAAGTTTATAT AGCACTTAAAAAACCATTTGT TACATTAAATGTCGAACTCAA ACTTTTAAAGAGTATAGAGAA CTACAAAATGGAAAAAGGAAG CAGATATACGCTTTATGAGGA AATTGTGTTAATGATCTCTCCT CTAAAAAAGGACTCTTCCCTA TTATCATAATGACCACACTGC CCGTCCTTAAACCCTGGTC GCTGACATTATGCCGAAGCTT (SEQ ID NO: 357)
CTP103JJ	No significant match	AAGCTTCGGCATAGTTACTGT TTGATTTTAAGTTTTTATATAG TTCTTAGTTTTGAAGAAATCCT TCAAGAACAGTTTCTCTAAAG AGCATGTTTTAATTAATGCTA ATTAATTACCTTTCTTAGTTTT CCAATTTAGTAGGCCACTTTC AATGTCTATTAAGTGAAATAA ACCTTCTGAACCTTAAACATTTT TAAATCGATTAAAAATTGTGTC AAAAT (SEQ ID NO: 358)
CTP104I	No significant match	AAGCTTTTTTTTTTTTCAAAACG GATTTGTAAAACTGTATTTCT TACACTGTGCACAAACCTTTT ATACTAAATAAATATCAAACCTA CATTCTTCAGAAAGATGTTTC TAGTATTTTCTTAGGTCACCTT CCATATGTAGTATGTACAGTG AGACCACTTTTTAAAAAGCAA TGACTTAGGCAAACCAACCCT AATGGTTTGTTAGACCATTTC CCTGTTTTTAATTAAAAATCAT AGGGTTGTGCTTCTGTATAAA GTTTGTACATTTCACAATGTAA AATACTGACATT (SEQ ID NO: 359)

CTP109P	No significant match	ATGCAACCACACGGAATTTAT TGAACATTTTCACAAGTGATT CATTAAAGGAAGGCTTTTTTCG TGCCTATATTGGTTACCATCA CTTTTGCCCCTATCACAATCT CATGGTGTAGTCCTTGCATGT AGCAGGAACTCAACAAATGTC TGCTAAATTGACAGATGGAGC CCCAGACGACCTAAAACCTTGC ACTTTAGAAGCACTTACTTCA TCCTGAGCTATTATGAATAAG GAACTCAAGTGACTGTTAAAA GCATTCTACTGATGAGTTGGT AATGTTCTAAAGCAACATATC TCAAAGGAAAGGATATTGAGT TTGTCTCCACCATAAAATCCT ATTTTTAAACAAAGGTACTACT TAAAAATGGTCTTCCAAAGGC CTCAGCAGAGGTTCTAAAGAG ATGTGACAATATGCCGAAGCT T (SEQ ID NO: 360)
CTP110A	No significant match	AACATATAAAAACATTTATTCA CTAGGAATAATTGTGGCAGAC ACAATCCAGTGAAAGCAGCTC AATCCTGCTCAGTTAGGCTAG TTGAAGAACCATACTTTAAAA AAAGAAAGGAAGACAGGCAA ACAAGTGTTTTACAGGAGCAA CAGACTTCAAGGTCACCCCCA CAAGACACCCTGCACAGCAG GGACGGGGACAGGGAGGAT GACCTCTTAGGGCCTGTGCC TTCGCAGAGGTGCTCGGCGG ATGGGTGTGGTCTTCTTGGGT GTCTCCTCTTCTGTCTATCTAT GCCGAAGCTT (SEQ ID NO: 361)
CTP111A	No significant match	AAGCTTCGGCATAAACGATCC ATTCTCCTCGGCCTCCCAAAG TGCTAAGGTTCCAGGCGTGA ACCACCATGCCAGCCTGTTC TTTTTTTTATCTCTAGGTGGTG CTCTCCAGCTGTAGTAGAAAT AGCATTTGTATTGGATCTATTT TTTTAAATAGGGACTAAATAC AGACCATTTTGTAGAGTGAA ATGCCAAACAAGAACGAGATT TTTCTCTTGGCT (SEQ ID NO: 362)

CTP116A	No significant match	AAAAGAGCATACTTATCAGTT GAATGGGGATAGAGGTTTTAG ATATTTTCCAAAATATTTATAA AACACTTCATTGTTGAGAAAT CACTTACAGAATGGTGGCTAT CAAACAAATAATTATAAATTTT TAAAGCACAAAGTCACATGTTT TGTAACCTCCTGTGTGAATTTA TTTTAGCTGTGACATTTAATTG AAAACATCAGATATGTTTTGG AAAAGTCTTAATTTGAGAACA ACTGAAGGAAGTTAATCCAGA ATCTATATGTAGTTAGCTATTA ATGATGATGCTTTATTGACAG TATATTGCTAATATATTTCTTC ATGAAATCTGAAGTTAAATAG TTTCGTTGTGGAATAGTGCA CTGTAAACATTTCCCTTACGAA GTTCAATAAACCAGCTTTGCC ATAAAAAAAAAAGCTT (SEQ ID NO: 363)
CTP124B	No significant match	ATGGCAAAGCTGGTTTATTGA ACTTCGTAAGGGAAATGTTAC AGTGACACTATTCCACAACGA AATTATTTAACTTCAGATTTCA TGAAGAAATATATTAGCAATAT ACTGTCAATAAAGCATCATCA TTAATAGCTAACTACATATAGA TTCTGGATTAACTTCCTTCAG TTGTTCTCAAATTAAGACTTTT CCAAAACATATCTGATGTTTT CAATTAAATGTCACAGCTAAA ATAAATTCACACAGGAGTTAC AAAACATGTGACTTGTGCTTT AAAAATTTATAATTATTTGTTT GATAGCCACCATTCTGTAAGT GATTTCTCAACAATGAAGTGT TTTATAAATATTTTGAAAATA TCTAAAACCTCTATCCCCATT CAACTGATAAGTATGCTCTTT TAATAAAAAAAAAAGCTT (SEQ ID NO: 364)

CTP126A	No significant match	AAAGAAAGTAATTATGGAAC AGATTTTTAACATTGTAAAATA CTAAATGATCCTTCAGTTGTA AGTTGATATATATTTGTAACT TTGTGAAATTGTATCCTTATGA AAATACCACTTTTGTGGAAGA GAGAATCCAACATGTAAATAT TTAATTTAAACAATCCATGTTT ACCCTATCCCTGCTCAATTAA ACAGTGTATATAGGTCTAATA ATAGCTCTGGAGCAACTTTTA TCATGAGTCAAATATATTAAAC ACATTGATGTCTTCTTGGTAT ATCTGAAAACAAGAGGTAGAA GTCCTGTTGAGAGTCTTTAAA ATAAACTATTTTTACAAATGTA AAAAAAAAAAGCTT (SEQ ID NO: 365)
CTP133B	No significant match	CCAAAAAGAGCCATGCCAG AGGGAAAGTTGGAAACGAAA GCCAAGTTTTCATTTAAAAGG AAACANTAAAGAGGTTAGCCA GAGAACTTGAACCAAAGAAA AGACAGCACGCTGTTCAGAAT GGTCAATAAGAGCCTAAAACG GTACCCTCGGAATGAAGCTT (SEQ ID NO: 366)
CTP134A	No significant match	CCAAAAAGAGCCATGCCAG AGGGAAAGTTGGAAACGAAA GCCAAGTTTTCATTTAAAAGG AAACATTAAAGAGGTTAGCCA GAGAACTTGAACCAAAGAAA AGACAGCACGCTGTTCAGAAT GGTCAATAAGAGCCTAAAACG GTACCCTCGGAATGAAGCTT (SEQ ID NO: 367)
CTP143B	No significant match	AAGATTTCAAAGAGTGAGCAA GTGCATTAGCAGGGCAGAGA GAGAGGCAGCAGCAGACTCC CTGCTGAGCTGGGAGCCAAC TTGGGACTCGATGCCGGGAC CCCAGGATCATTACCCGAAG CTT (SEQ ID NO: 368)

CTP144B	No significant match	GGGTAAATCCGTCCAGTTTAC TGTAATATGCCTTTGACAAA CTGGTAACTCATGTCCCATCC CAGTCCCGAGTACTGGACCA GGGAACTCCAGCCACAGTT GAGGGAAGGCCACCTGTTGG CTCTGGGGCAGCAGGTCATC CAGTGGGCTTCAGGAGTCAC CAGGCCTCTGACCAGTTCCTC CCCACCAAGCAGTTTCAGAGT TGTCCGCCAAGTCTATTTAC ACCTCTCGTGTATGCCGAAGC TT (SEQ ID NO: 369)
CTP145B	No significant match	GGA CTGATAATAATAGGATTT TATTTCTAAAATTTATCTTAGA GCTTTCAAAGAGTATAACACA CAGATCTTTACCACCACACCC CCCTTGCCCTATACAGGAAACA ACCAAGTTGTGAGAACATTTA TCATGCACAGACACATCAGG GCTTGCAAGGTGCTACACAGG AATCACAATGCTGTTCCACA TCATGTCTTCTGTTATGCCGA AGCTT (SEQ ID NO: 370)
CTP149B	No significant match	AGGAAGAATAAAAACATATAA AAACATTTATTCACTAGGAATA ATTGTGGCAGACACAATCCAG TGAAAGCAGCTCAATCCTGCT CAGTTAGGCTAGTTGAAGAAC CATACTTTAAAAAAGAAAGG AAGACAGGCAAACAAGTGTTT TACAGGAGCAACAGACTTCAA GGTCACCCCCACAAGACACC CTGCACAGCAGGGACGGGGA CAGGGAGGATGACCTCTTAG GGCCTGTGCCTTCGCAGAGG TGCTCGGCGGATGGGTGTGG TCTTCTTGGGTGTCTCCTCTT CTGTCATCTATGCCGAAGCTT (SEQ ID NO: 371)

CTP150A	No significant match	AGCATATGTAAGATCTCTGGC TTGTAGAAGACAAGTTTACAT AGCACTTAAAAAACCATTTGT TACATTAAATGTCGAACTCAA ACTTTTAAAGAGTATAGAGAA CTACAAAATGGAAAAAGGAAG CAGATATACGCTTTATGAGGA AATTGTGTTAATGATCTCTCCT CTAAAAAAGGACTCTTCCCTA TTATCATAATGACCACACTGC CCGTCCTTAAAACCACTGGTC GCTGACATTATGCCGAAGCTT (SEQ ID NO: 372)
CTP154A	No significant match	AGCATATGTAAGATCTCTGGC TTGTAGAAGACAAGTTTATAT AGCACTTAAAAAACCATTTGT TACATTAAATGTCGAACTCAA ACTTTTAAAGAGTATAGAGAA CTACAAAATGGAAAAAGGAAG CAGATATACGCTTTATGAGGA AATTGTGTTAATGATCTCTCCT CTAAAAAAGGACTCTTCCCTA TTATCATAATGACCACACTGC CCGTCCTTAAAACCACTGGTC GCTGACATTATGCCGAAGCTT (SEQ ID NO: 373)
CTP164A	No significant match	AAGCTTCGGCATAACGGTGTG AGGTTACAGTCCAGTTTTGTG TGCTTTACTACACGGTTTGGT TACAGGACTTCTGTGCATTGT AAACATAAACAGCATGGAAA AGGTTAAATACCTGTGTGCAG ATTGTAAGATCTGGTCCGGAC TTGCTGTGTATATTGTAACGT TAAGTGAAAAAGAACCCCCCT TTGTATCATAGTCATGCGGTC TTATGTATGATAAACAGTTGA ATAATTTGTCCTCAGACTCTTT ACTATGCTTTTTTAAAATTAAG AAAAATGTAAATATAGTAAAA TCTTCCTATGCAATTAACCTG G (SEQ ID NO: 374)
CTP179K	No significant match	AAGCTTACCAGGTAGAGGGA CTGTTGGAGGTATGGACGCA CACAGGAGGGCCAGGCCAAG GCACGAGTTTTTCAGTGAAGG GGGTAAAGCATCACAATTTAA AATGTTTGCAATTAACCTGGT TTGTTAAATATC (SEQ ID NO: 375)



CTP185C	No significant match	CAGCGAAGAGGCATTAAAGAT TCATGCCATAAGTTTATTTACA AACATGTTGTGTATGTTGAAT TCAAGAGATTGATCCATTTT CAGAGACTGCACCTCTTAAAA TGTTCTTTTTCACATCTGTTA GTGGATCAAAAGCTT (SEQ ID NO: 376)
CTP197A	No significant match	ATGGTGTGTGTGTGGGTTCAA ATAGTTTATTCACCTCTGTAGT GGAAAAACAAGGAGAAATAAA ATCTGCTTACAATGGCCAAAA TTTATGGAGAAGCCCTAAAGT TGCTTTCCCAAATCACAAAT CTGATTCAAGAGAAGGAAAAA AATGATGAAAAACATCTCATC ACACAAAACCTCAGTGTGGTGT CTCTGATAGTCATCAGCCAGC AGAAGCTT (SEQ ID NO: 377)
CTP202C	No significant match	AGAAAAAAAAATTGATAATTAG GTGCAGATAGAAAATATGAAT TAGAAGAGGTTAATTCAAGTG ATCAGCCTGAAAGTTCAGCTT CATTAGCTTTGTGGTAAATCC ACCACTTCAGATAGTAACTAA AGTAAATTTTAAATTTTATAAG AATAAAGTAATCCCTGAAAAG AATTCACTTTTTTCCAGAAG AAGCTTATAATTAAAAAAAAAA AGCTT (SEQ ID NO: 378)
CTP208B	No significant match	CTAGAGGAAGTGCTTTTTATT TTTAGATCAACCAACATATTT AATATAAAAACCTTTTAAATATA CAAACCTGTAATCACAATTGCA TCCACGTAGCAGCGAGGGAA TGGGGTGTTGCAGGAAGCTT (SEQ ID NO: 379)
CTP215B	No significant match	AAGCTTAGAGGCAGTAAACAG GAGCGTCCCCAAGAAAAAGA GGAAATTCTCTTCTAAGGAGG AGCCACTTAGCAGTGGACCT GAAGAGGCTGCTGGCAACAA GAGCGGCAGCTCCAAGAAAA AGAAAAAGCTCCAGAAGCTAT CCCAGGAAGATTAGAATGGA CATTTTACCAGGTGGGGCAAA CCCACATGATTCCAAACCCAC CCTTATATCCCAATAAAAACA AATTCACAGG (SEQ ID NO: 380)

CTP222D	No significant match	AAGCTTACCAGGTGAAGAGT GGGGTTGTCATGACCTTGGC TATGACGCCCAGCATTTCGAG GTGGCTCCCTCTATTCTTTAC TTTGGGCATCATAGAAAACGT GTCTCTGGGGGATTAATCTTA GAGAAAAATAAAGCCTTTCTG CTG (SEQ ID NO: 381)
CTP306B	No significant match	AAGCTTCTGCTGGTATGGAAA GCCTTCAAGGAAGAGGGTAA TGAGGGGGAAGAAGTGCTGT GCCAAAGTGACAGCATTCACT GAGGAATAAAGAAAGGAGCT CAGTGGTAGCAGGATGTTGA GCTTCCAAGAAAATCTGGTGG TGGTGAGAAAGTGGCTGCTG TGCACTGCAAGGAAACAGAG CGATTAAAGAAAGAGATGTGA CAGGGTAGGTGGAAGAGATA GCCAGAAGTTAGAAATGGGTT ACACTGAAGAAGTAAATTATT TGATTAAACAATAAGTAAATAT ACTGGGGATAACAAAAGCCT GATTTCTCCACTGTCTCAGAA GGGATTTGCAAGTATGG (SEQ ID NO: 382)
CTP308KK	No significant match	AAGCTTTCTCTGGATGAACAG TTAAATGGAACCTGGAAACCT CTTCCTGGGATTATTCCTTAA GCAAGGCAGTGTCAAAGGCA ACCCTCCCAGCAAGACTTCAG AAAACAGCTGGCAGAACTACA GGATCTGGTGTCTGGTGTGTA AAATACTCTCCTCCCTGTTCA AATGATTGAGAACATGTGCAA AGTGTGCTAGCTTTTCATCACA TATACATAACAGCATTATGTAT CAAGTTACCCTGTTCAAACAA GGAGCAGGCTTCCTCTTTTG ACTTAAATGACATGAAGTGAG AAAAAAAATGAGAATAACCN CNNGGGAATTATAGAGGGTTA TAATTCTATCCCNACTATTTCA ATAAAAGCCATCACGGG (SEQ ID NO: 383)

CTP309A	No significant match	AAGCTTTCTCTGGCTTTCCGA AGGTAAACTGTTGCCGAAGT TGCTGCGTTACAAGAGCGTAT CCCAGAAACCATAAGGCTACA ACGCCGAAATTGGGAGCTAC ATCAGTTTGAATCGATTCAAG AAGGTCATCGCTCAGGCCGT CCCAATACACTGACCTCAAAC TATCAGGCTCAAATCTTAGAG TGGGTCAACACAAGCCCACT CAATGCAGAACAAATCCGAGT CAAACGTCATGAAAAACACGG TGTGTCCGTGTCTGTTGAAAC TCTTCGCAAGTTTTTGCGAGA TTCAGGCATGGTCTTCAAACG CACCCGCCACAGCTTG (SEQ ID NO: 384)
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## REMARKS

This amendment to the specification is made to replace the original sequence listing with a sequence listing that complies with the sequence rules, 37 C.F.R. §§ 1.821 - 1.825.


In the event that there are any questions concerning this amendment or the application in general, the Examiner is respectfully urged to telephone the undersigned representative so that prosecution may be expedited.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "**Version with Markings to Show Changes Made**".

In the unlikely event that the transmittal letter is separated from this document and the Patent Office determines that an extension and/or other relief is required, Applicant petitions for any required relief including extensions of time and authorizes the Assistant Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 03-1952** referencing docket no. 400742000200. However, the Assistant Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

Respectfully submitted,

Dated: April 5, 2002

By:   
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**Version with Markings to Show Changes Made****In the Specification**

On page 50, the paragraph beginning [00316] has been amended as follows:

1. Combine in a microfuge tube:

1 ug total RNA/8ul DEPC treated water (Ambion #9922)

2ul (1 ug) Oligo d(T)22 -- T7 (Operon, 5'TCT AGT CGA CGG CCA GTG AAT TGT AAT  
ACG ACT CAC TAT AGG GCG 3') **(SEQ ID NO: 385)**

On page 50, the paragraph beginning [00322] has been amended as follows:

1ul Template Switching Primer (1ug/ul) (Operon, 5'-AAG CAG TGG TAT CAA CGC AGA  
GTA CGC GGG-3') **(SEQ ID NO: 386)**

Please substitute **TABLE 1** with **TABLE 1** amended as follows:

**TABLE 1**

ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
C1	c-myc	X95367	503	caagaggacgaagaagaaa ttgatgtt <b><u>(SEQ ID NO: 1)</u></b>	cgcttcgcaacaagtcctt <b><u>(SEQ ID NO: 2)</u></b>
C2	c-erb B-2	AB008451	507	gtgtttgatggtgacttgggaat g <b><u>(SEQ ID NO: 3)</u></b>	gtactccgggttctctgctgtag g <b><u>(SEQ ID NO: 4)</u></b>

ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
C3	Catalase	AB012918	506	gacaaaatgcttcagggtcgtc tt (SEQ ID NO: 5)	ccatgctgcataaagggtgtga atc (SEQ ID NO: 6)
C4	p53	AF060514	506	acttttcgacacagtgtggtggt g (SEQ ID NO: 7)	cgagaggtagattgcccttct tt (SEQ ID NO: 8)
C5	Metallo- thionein 2	AB028042	330	gactccagccgccccttct (SEQ ID NO: 9)	aggaatgtagtagcaaacgg gtca (SEQ ID NO: 10)
C6	Interleukin-2	U28141	490	tcacagtaacctcaactcctgc ca (SEQ ID NO: 11)	gtcagtgttgagaagatgcttt gaca (SEQ ID NO: 12)
C7	Metallo- thionein 1	D84397	376	gctctgactctccctgtggtctg (SEQ ID NO: 13)	caaacgggaatgtagaaaa caagtca (SEQ ID NO: 14)
C8	Intercellular adhesion molecule-1	L31625	507	caagtcagagctggaatttccc at (SEQ ID NO: 15)	tggaaagaactcccaactgg acat (SEQ ID NO: 16)
C9	Multidrug resistant protein-1	AF045016	510	ggcaaagagataaagcacct gaatg (SEQ ID NO: 17)	atagatgcctttctgagccagc ag (SEQ ID NO: 18)
C10	Beta-actin	AF021873	509	aagtattctgtgtggatcggag gc (SEQ ID NO: 19)	caactcaaggcaattaacca ccc (SEQ ID NO: 20)
C11	Tumor necrosis factor-alpha	S74068	510	caaattgcctccaactaatcag cc (SEQ ID NO: 21)	acagggcaatgatcccaaag taga (SEQ ID NO: 22)

ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
C12	Nitric oxide synthase-1, inducible	AF077821	510	gtccttgcatcctcattggacct (SEQ ID NO: 23)	gctgttttgctgcaccatctttt (SEQ ID NO: 24)
C13	BRCA-1	U50709	499	tttctgggtattgcaggaggaa aa (SEQ ID NO: 25)	agtctgcagcagttctgggaat ct (SEQ ID NO: 26)
C14	Metallo-thionein-IV	AB028041	385	ctgtgacagcattggagcttctt g (SEQ ID NO: 27)	ttacatgagtgaccaccac ca (SEQ ID NO: 28)
C15	Tumor necrosis factor receptor	AF013955	507	ggctctgttggaaatatacc cc (SEQ ID NO: 29)	cagttcacacaagagacgca ttca (SEQ ID NO: 30)
C16	c-kit	AF099030	504	gagacttggctgctagaaatat cctcc (SEQ ID NO: 31)	aattgatccgcacggaatggt (SEQ ID NO: 32)
C17	CD40 ligand	AF086711	508	ccaattgaagccttctcaagg a (SEQ ID NO: 33)	gagtaagccaaaagacgtg aagcc (SEQ ID NO: 34)
C18	Cubilin	AF137068	508	tgaatgcacacatgacttctgg a (SEQ ID NO: 35)	tgatggatacactgcatactct gcg (SEQ ID NO: 36)
C19	Alkaline phosphatase	AF149417	499	cagatgtggagtatgagatgg acga (SEQ ID NO: 37)	agaccaaagatagagttgcc ccg (SEQ ID NO: 38)
C20	Pancreatic lipase	M35302	490	actcagagagcatcctcaacc ctg (SEQ ID NO: 39)	cagaagctgtgcactgtttctc ct (SEQ ID NO: 40)

ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
C21	Apolipoprotein CIII	M17178	236	agccctggaggaagaggacc cct (SEQ ID NO: 41)	cagaggctggagttggttgg cc (SEQ ID NO: 42)
C22	Interleukin-4	AF054833	301	tcacctccaactgattccaact ctgg (SEQ ID NO: 43)	gtctgtttgccatgctgctgag gttc (SEQ ID NO: 44)
C23	Tissue inhibitor of metalloproteinases-1	AF077817	492	cttgtcaactcccaaatcgta tca (SEQ ID NO: 45)	gtgcatatcccctggctctctgg cag (SEQ ID NO: 46)
C24	Ubiquitin	AB032025	341	gcagattttgtaaagaccctga cggg (SEQ ID NO: 47)	acttctctgcggcagttgaca gcac (SEQ ID NO: 48)
C25	Matrix metalloproteinase-2	AF095638	260	agcggtcagtgtaaggaggt gg (SEQ ID NO: 49)	tgtcccagggcacgatgaagt ca (SEQ ID NO: 50)
C26	Interleukin-6	U12234	493	cctgggtccagatgctaaagag caaggt (SEQ ID NO: 51)	acctgggtccgaaacatcga ggatatt (SEQ ID NO: 52)
C27	Vascular cell adhesion molecule 1 (VCAM-1)	U32086	517	tggaattgaacccaaacaaa ggca (SEQ ID NO: 53)	cccgcacaccttaactggacct tgt (SEQ ID NO: 54)
C28	Phenol sulfotransferase	D29807	495	gctccccagacctgttgatc (SEQ ID NO: 55)	gcatcaaagcgctcattctgg gc (SEQ ID NO: 56)
C29	GRP94	U01153	503	aatcccagacatcccctgatca aagac (SEQ ID NO: 57)	cacttcttctgtgacccacaat cca (SEQ ID NO: 58)



ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
C30	E-selectin	L23087	506	ttacacggttgctgtcactggat gaaa (SEQ ID NO: 59)	caccaggtgccccactattc atgtt (SEQ ID NO: 60)
C31	gastric lipase	Y13899	501	tgactatcatcagagcatgcc tcct (SEQ ID NO: 61)	tccatcctaggaccccgagat catgac (SEQ ID NO: 62)
C32	HSP27	U19368	503	ggaccctttccgcgactggtac c (SEQ ID NO: 63)	tgatttctgccgactgggtggct (SEQ ID NO: 64)
C33	IL-10	U33843	472	cggttcctgctggaggactt aaga (SEQ ID NO: 65)	ggtatgacggggttctcaag cagtt (SEQ ID NO: 66)
C34	caveolin-1	U47060	470	tccgaggggcacctctacacc gt (SEQ ID NO: 67)	ttgcaacagcctcaaagaa cgg (SEQ ID NO: 68)
C35	H-ras, p21	U62092	193	accatccagctcatccagaac cacttc (SEQ ID NO: 69)	tggcaaatacacagagaaa gccctccc (SEQ ID NO: 70)
C36	rab2	M35521	514	agacaagagggttcagccagt gcatga (SEQ ID NO: 71)	gtgtgtggcattagtagcagc gtgctg (SEQ ID NO: 72)
C37	rab5	M35520	521	aagcctagtgttcggtttgtgaa ggg (SEQ ID NO: 73)	ttggctgcgtgggttcagtaag gtcta (SEQ ID NO: 74)
C38	rab7	M35522	508	ccccaacacattcaaaaccct cgata (SEQ ID NO: 75)	tgtgtgtgcagggtgaagtgtt tgg (SEQ ID NO: 76)

ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
C39	APO CII	M17177	256	ctggttctgttgcctgcctcctg ta (SEQ ID NO: 77)	ggtcagtgaaaatccctgcgt aagtgc (SEQ ID NO: 78)
C40	endothelin-2	X57038	330	ctgtccgcctctgtccccctgtt (SEQ ID NO: 79)	ggagtagggacaacaccca gccg (SEQ ID NO: 80)
C41	FGFR2	AF211257	498	tgattgttcttctgccaccaaatt gcc (SEQ ID NO: 81)	taaatacagaacgcacaaca cggcgac (SEQ ID NO: 82)
C42	leptin	AB020986	503	gccttaccctcagggaccttgc a (SEQ ID NO: 83)	gcatgaacaaaacagcctcc gcc (SEQ ID NO: 84)
C43	prosta- glandin D synthase	AB026988	510	aggtgtccctgcagcccaactt c (SEQ ID NO: 85)	gggcggcggtcacctactgtt c (SEQ ID NO: 86)
C44	paraoxo- nase-2 (PON2)	L48515	472	caggactccacagcttttcccc agata (SEQ ID NO: 87)	ggtgaaatattgatccatttgc tgca (SEQ ID NO: 88)
C45	beta- glucuroni- dase	AF019759	493	cgccgtatgtggacgtcatctgt gt (SEQ ID NO: 89)	agacagaggcttcagagggc gaacg (SEQ ID NO: 90)
C46	caveolin-2	AF039223	359	ctccagggtgggcttcgaggac gt (SEQ ID NO: 91)	tggggccaagtgtcagtcgt g (SEQ ID NO: 92)
C47	matrix metallo- proteinase- 14	AF032025	350	ttcttcaaaggagacaagcact gggtg (SEQ ID NO: 93)	tagcctggctctaccttcagctt ctgg (SEQ ID NO: 94)

ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
C48	matrix metallo-proteinase-9	AB006421	471	gattctccaagggcaaggacgc <u>(SEQ ID NO: 95)</u>	tcacgtagcccacttcgtccac c <u>(SEQ ID NO: 96)</u>
C49	IL-8	U10308	498	gtggcccacattgtgaaaactc agaaa <u>(SEQ ID NO: 97)</u>	gaccaaggcaagggtgaaa agggactc <u>(SEQ ID NO: 98)</u>
C50	keratinocyte growth factor	U80800	482	caatgacatgactccagagca aatggc <u>(SEQ ID NO: 99)</u>	ttgccataggaagaaagtgg gctgttt <u>(SEQ ID NO: 100)</u>
C51	decorin	U83141	505	gattgaaaatggagcctccag ggaat <u>(SEQ ID NO: 101)</u>	ataattccaagctggatggca gagcg <u>(SEQ ID NO: 102)</u>
C52	glucose-6-phosphatase	U91844	508	ctggggatctcagctgcaggat tttct <u>(SEQ ID NO: 103)</u>	atcctttcctctccttgcctctc ctc <u>(SEQ ID NO: 104)</u>
C53	TGFB-1	L34956	489	gacccttcctgctcctcatggcc <u>(SEQ ID NO: 105)</u>	cttaaatacagcccggcgca gcg <u>(SEQ ID NO: 106)</u>
C54	ZAP36/annexin IV	D38223	488	gacacgtcctcatgttcagag gggtg <u>(SEQ ID NO: 107)</u>	ccagatgtgtcaccccttgatga aggag <u>(SEQ ID NO: 108)</u>
C55	N-ras	U62093	224	gttgagcagggtggtgtggga aaag <u>(SEQ ID NO: 109)</u>	gcaaatacacagaggaagc cttcgcc <u>(SEQ ID NO: 110)</u>
C56	K-ras	U62094	228	gtagtggagctggtggcgtag gcaa <u>(SEQ ID NO: 111)</u>	ggcaaatacacaagaaag ccctccc <u>(SEQ ID NO: 112)</u>
C57	p38 MAPK	AF003597	506	ctggtgaccatcttatgggag cagat	tttgcaaagttcatcttcggcat ctgg

ID #	Gene Name	Accession Number	Size of insert	Left PCR primer sequence	Right PCR primer sequence
				(SEQ ID NO: 113)	(SEQ ID NO: 114)

Please substitute **TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY**, with **TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY** amended as follows:

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY			
ID#	Gene Name	Accession Number	Target Sequence
C1	c-myc	X95367	<p>caagaggacgaagaagaaattgatgtgtttctgtggaaaaaaggcag  gccccctgccaaaaggtccgaatcgggggtccccctctgtgaggccac  agcaaacctctcacagcccactggtccttaagagatgcatgtgtcca  cccatcagcacactacgcggcaccctccaccaggaaggactat  ccgcccgaagagggcgagggtggacagtggtagagtctgaaac  agatcagcaacaaccgcaaattgtccagcccaggctctcgacagc  gaggagaatgacaagaggcgaacacacaacgtctggagcgccag  aggaggaacgagctgaaacggagctctttgccctgcgtgatcagatc  cggagttgaaaacaatgaaaaggccccaaggtagtgccttaa  aaaagccaccgctacatcctgtccgtccaagccgaggagcaaaag  ctccttccgaaaaggactgttgcggaagcg</p> <p>(SEQ ID NO: 115)</p>
C2	c-erb B-2	AB008451	<p>gtgtttgatgtgacttggaatgggggcagccaaggggctgcagagc  ctccctcacaggaccccagccctctccagcggtacagtggagacct  acggtaccctgccccctgagactgatgtaagggtgccccctgacct  gcagccccagcctgaatatgtgaaccagccagaagttggccgcag  cccccttgccctagaaggcccttgctcctcccgaccggctggtgc  cactctggaaaggccaagactctgtccccaagactctctcccctggc  aagaatgggggtgtcaaagacgttttgctttgggagtgtgtggagaat  ccggagtacctggcaccgggggcagagctgcccctcagccccacc  ctcctcagccttcagcccagccttgacaacctgtattactgggaccag  gatccatcagagcggggctctccaccagcaccttgaagggaccct  acagcagagaacccggagtac</p> <p>(SEQ ID NO: 116)</p>

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
C3	Catalase	AB012918	<p>gacaaaatgcttcagggctgcttttgcctatcctgacactaccgccac  cgctgggacccaactatctcagatacctgtgaactgtccttccgggct  cgagtgggcaactaccaacgggatggcccatgtgcatgtcgcacaat  caggggtgtctccaaattactacccaatagctttagtgtcctgaaca  acagcgttgtcctagagcatagcagccaatgttcgccagatgtgcag  cgctcaacagtgtccaatgaagataatgtcactcaggtgcggaccttct  attgaaggctactgtgtgaaggagaggaacgcctgtgcgagaac  attgtggccatctgaaggacgcacaactttcatccagaagaagcg  gtcaagaactcagtgtatgtccaccctgactacggggcccgattcagg  ctctttggacaaatacaatgtctgagaaacctaagaacgcgattcacac  ctttatgcagcatgg</p> <p><b>(SEQ ID NO: 117)</b></p>
C4	p53	AF060514	<p>acttttcgacacagtgtggtggtgccttatgagccacccgaggttggtct  gactataccaccatccactacaactacatgtgaacagttcctgcatggg  aggcatgaaccggcgcccatcctcactatcatcaccttgaagactc  cagtggaaacgtgctgggacgcaacagcttgaggtagcgtttgtgcc  tgtccgggagagaccgcccggactgaggaggagaatttcacaaga  agggggagcctgtcctgagccacccccgggagtagcaagcagc  actgcctcccagcaccagctcctctccccgaaaagaagaagccac  tagatggagaatatttcaccctcagatccgtggcgtaacgctatgag  atgttcaggaatctgaatgaagccttgagctgaaggatgccagagt  ggaaaggagccagggggaagcagggtcactccagccacctgaag  gcaaagaaggggcaatctacctctg</p> <p><b>(SEQ ID NO: 118)</b></p>
C5	Metallothionein 2	AB028042	<p>gactccagccgcccctctcgccatggatcccaactgtcctgcgcgc  ggggggctcctgcacgtgcgcggtcctgcaaagcaagagtgca  gatgcacctcctgcaagaagagctgtgctcctgtgccccgtgggctg  tgcaagtgtgccagggtgcacgtgcaaggcgcatcggaagaat  gcagctgtgtcctgatgtggggagagcctattcctgatgtaaataga  gagcaggtgtacaaacctacagttgtgggggtttttgtgctttgtttg  ggccaactctgaccggttgctactacattct</p> <p><b>(SEQ ID NO: 119)</b></p>
C6	Interleukin-2	U28141	<p>tcacagtaacctcaactcctgccacaatgtacaaaatgcaactctgtctt  gcacgcactgacgctgtactgtcgcaaacagtgacattacttcaa  gctctacaaaggaaacagagcaacagatggagcaattactgtggatt  tacagttgctttgaatggagttaataattatgagaacccccaaactcca  ggatgctcacatttaagttttacacgcccagaaggccacagaatttac  acacctcaatgtctagcagaagaactcaaaaacctggaggaagtgt  aggtttacctcaaagcaaaaacgttcactgacagacaccaaggaatt  aatcagcaatatgaatgtaacacttctgaaactaaagggatctgaaac  aagttacaactgtgaatatgatgacgagacagcaaccattacagaatt</p>

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
			ctgaacaaatggattacctttgtcaaagcatcttcaacactgac (SEQ ID NO: 120)
C7	Metallothionein 1	D84397	gctctgactctccctgtggtctgcctgggacctccgctcgcctcgctc gctcgcctcgcctcgcctgggctcgagatggaccccgactgctcctgc tccaccgggtgctcctgcacgtgcgtggtcctcgtcaaaggaaggagt gcaaagtcacctcctgcaagaagaggtgctgctcgtgccccgtggg ctgtgccaaagtgtgccagggtgcatctgcaagggtgcgtcggaaca gtgcagctgctgtgcctgatgtgtgagaacacctgttcctgatgatata agcaagcaacatgtacaaacctgcagtttaagcatttttcatatcact ctgactgttttctacattcccgttg (SEQ ID NO: 121)
C8	Intercellular adhesion molecule-1	L31625	caagtcagagctggaattcccattccattggctaagctgcttctccag aggaggactggcaatggtgatacagtttagttggcagatgccaggg acaaccactgagccccatactcctcccgctcactgacactgacctctg ttagccgtctctccccatacgcactctgctagtgctcagatgacatcg ctgcatgcctgaacacgaatgaccactcactggcagctaaactgtgga gtcccatgaaactgcccacccctatgtgtccctgcctggtcctgtttcat ctcgggtggcaccatacaaggacacagcactctggcagcccaattcct gcagagacgagggccctgcaggcagttggcagaagaggccggcga ggattcctgtccagctccggaagcttctctttagtaataaagcctgtct gtgggcgctgtctgtgtgagtgaggagggtgcatgtccagttggg agtctttcca (SEQ ID NO: 122)
C9	Multidrug resistant protein-1	AF045016	ggcaaagagataaagcacctgaatgtccagtggtccgagcacacct gggcatcgtgtctcaggagccatcctgttgactgcagcattgccgaga acattgcctatggagacaacagccgggtcgtatcacatgaagagattat gcaggcagccaaggaggccaacatacaccacttcacgagacactc cctgagaaatacaacaccagagtaggagacaaaggaaccagctct ctggtggccagaaacagcgcatgccaatagctcgcgctctgttagaca gcctcatattttgcttttgatgaagctacatcagctctggatacagaaagt gaaaagggtgtccaagaagccctggacaaagccagagaaggccgc acctgcattgtgatcgccaccgctgtccaccatccagaatgcagatt aatagtgggtgttcagaatggcaaagtcaggagcatggcacacatca acagctgctggctcagaaaggcatctat (SEQ ID NO: 123)

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
C10	Beta-actin	AF021873	<p>aagtattctgtgtggatcggaggctccatcctggcctcgctgtccaccttc  cagcagatgtggatcagcaagcaggagtagcagagtcgggcccct  ccatcgctccatcgaaatgctttagatcgactgcgagcagatgcgtag  catttgctgcatgagtgaaatccgaagtataaatggccctggcaaatgg  ctagcctcatgaaactggaataagcgcttgaaaagaaattgtccttga  agctngtatctgatatacagcantggattgtagaactgtgtgatcttg  acnttgatccaagtaactgttcccttggtatatgttaataccgcctatcc  aggattcttagaggctggcaagagctgaaccagttgcatttctgtcttg  ccgtctaacagggttggaagggtccgagccttaggaccacttctctgt  cttaccatgtttcctgccagaacaccgtgggtggtaattgccttgaa  gttg</p> <p><b>(SEQ ID NO: 124)</b></p>
C11	Tumor necrosis factor- alpha	S74068	<p>caaattgcctccaactaatcagccctctgcccagacagtcaaatactt  tctgaaccccaagtgaagccagtagctatgtgtagcaaacccc  gaagctgaggggcagctccagtggtgagccgacgtgccaatgacct  cctggccaatgacgtggagctgacagacaaccagctgatagtccgtc  agatgggtgtacctgatagctcccaggctcttcaagggccaaagg  tgccctccaccatgtgtcctcaccacaccatcagccgttcgctg  ctcctaccagacaaaggtaacctactctgccaatcaagagcccttg  caaaggagaccccaaggggaccgaggccaagccctgtgacga  gcccatacctgggaggggtctccaactggagaagggtgatcgact  cagcgctgagatcaatctgcctaactatctggacttgccgagctggg  aggctactttgggatcattgccctgt</p> <p><b>(SEQ ID NO: 125)</b></p>
C12	Nitric oxide synthase-1, inducible	AF077821	<p>gtccttgcatcctcattggacctggcacaggcatgcccccttcgcagtt  tctggcagcagcggtccatgacatcaagcacaagggtctcggggc  agccgatgacctggtgttgggtgcccgcgcccagatgaggaccac  ctgtatcgggaggagatgttgagatggccagagtgggtgctgcat  gagggtcacacagcctattctgcctgctggccagccaaggctatg  ttcaagacatcctgcggcagcagctggccagccaggtgctccgcatgc  tccatgaggagcagggccacctttatgtctgtggggatgtgcgtatggc  cgggatgtggccataccctgaagcacctggtggtgccaagctgagc  ctgagtgaagagcaagtgaggactattttccagcttaagagccaga  agcgctatcatgaagatatcttgggtgctgtgttccctatgagggtgaaa  aagatggtgcagcaaaacagc</p> <p><b>(SEQ ID NO: 126)</b></p>
C13	BRCA1	U50709	<p>tttctgggtattgcaggaggaaaatgggtagttagctatttctgggtaacc  cagtctattaaagaaagaaagatactagatgagcatgatttgaagtca  gaggagatgttgtaagtgaagaaatcaccagggtccgaagcgagc  aagagaatcccaggacagagaatccaagacagaaagatcttcagg  ggcctagaatctgttgctatggacctttaccaatgcccacagatca</p>

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
			attagagtggatggtgcacctctgtgggcttctgtggtgaaggagccttc gttattcacctcagcaagggcactcatccagtggtagtcgtgcagccg gacgcctggacagaggacagtggcttccatgcatgggagatgtgt gaggcacctgtgtgacccgagagtgggtactggacagtgtagccctc taccagtgccaggagctggacacctacatgccgcagattccaga actgctgcagact (SEQ ID NO: 127)
C14	Metallothionein-IV	AB028041	ctgtgacagcattggagcttctggacacctggacatggaccccgagg aatgcacctgcatgtctggaggaaatctgtatctgtggagacaattgcaa tgtacaacctgcaactgtaaaacatgtcgaaaaagctgctgtcctgtg ccccccggtgtgccaagtgtgccagggtgcatctgcaaaggag gctcggacaagtgcagctgctgtgctgaaccgcatccgtggtgtggg gctggcgggggcggggtgtggatgccacagccccgaaatgtctgt acagtgcattagtggagaaactgaaattattgtaccatagggtatgctttta tataattgctcagagggtgggtgggtgacactcatgtaaa (SEQ ID NO: 128)
C15	Tumor necrosis factor receptor	AF013955	ggctctgtgttgaaatatacccataagcgttactgcaactgttctcac ccccggaacagggtgaagagagctattctgtgtcccagggaataat attcacctcaagacgattccatttgctgtacgaagtgcacaaaggga cctacctgtacaatgactgtccaggcccagggtggacacagactgca gggaatgtgaaaacggaactttacagctcagagaaccacctcagac aatgtcttagctgtcctcaaatgccgaaaagaaatgaaccagggtggaga ttctcctgtactgtgtaccgggacacgggtgtgtggctgcaggaagaac cagtaccgggttttattggagtgaaccctttccagtgcataaactgcagc ctctgcctcaatggcacgggtgcagatctcctgccaagagaagcagaac accatatgcacctgccacgcggggtcttctaagagagcatgaatgcg tctctgtgtgaactg (SEQ ID NO: 129)
C16	c-kit	AF099030	gagacttggctgctagaaatctccttactcatggtcgaatcacaaag atttggattttggttagccagagacatcaagaatgattctaattatgtgt caaaggaaacgctcggctacctgtgaagtggatggccctgagagca tttcaactgtgttacacattgaaagtgtgtgttcttatggattttct gtgggagctcttctttaggaagcagcccctacctgggatgccagtcg attcaaagttctacaagatgatcaaggaaggcttcggatgctcagccc tgagcatgcacctgctgaaatgtatgacatcatgaagacgtgctgggat gctgatcccctgaaaaggccgacgtccaagcagatcgtgcagctaatt gagaagcagatttcagatagaccaatcatatttccaacctgcga actgcagccccaaccagagcgccccgtgggtggaccattccgtgcgg atcaatt (SEQ ID NO: 130)



TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
C17	CD40 ligand	AF086711	<p>ccaattgaagccttctcaaggagataatgctaaacaacgaaatgaag  aaagaagaaaacattgcaatgcaaaaaggatgacaggatcctcgaat  tcagcccatgtcataagttaggctagtagtaaccagcgctccgttctgc  ggtggcgccaaaagggtactacaccataagcagcaacacctggtgag  cctcgagaatgggaaacagttggcgtgaaaagacaaggactctatta  cgtctatgcccaagtcaccttctgctcaatcgggcagcttcgagtaag  ctccgttctgctccagcctatgctccattccccgagtggaacggagag  agtcttactccgcgcgcgagctccgcggctcgccaaacctgcggc  caacagtcctccactgggaggagtattgaattgcatccaggtgcttc  ggtgttctgaacgtgactgatccaagccaagtgaacacgggaccg  gcttcacgtctttggcttact</p> <p><b>(SEQ ID NO: 131)</b></p>
C18	Cubilin	AF137068	<p>tgaatgcacacatgacttctggaggtgaagaatggaagtatagcagt  tcaccattattggcacatactgtggaactctgtgcccagatcctatcttct  cgaaacaacaaactatacctacgtttaagaccgatagcgcaacttcc  aatcgtgggtatgaaattgtctggacctcatcacctctggctgtgtgga  accctttatggagacagtgttcttaccagccccggctatcccgccac  ttaccccaacaacactgactgtgaatgggccatcatcgctcctgtgga  agacctgtcacctgtcacctttactttatcagcatcgatgatccggagac  tgtgtccagaactatctatactctacgatggaccgatgctaatttccat  ccttggaccatactgtggggcagacaccaacatagctcccttgtggcc  tcttcacatcgtgtctcataaaatttcacgcagagtatgcagtgtatccat  ca</p> <p><b>(SEQ ID NO: 132)</b></p>
C19	Alkaline phosphatase	AF149417	<p>cagatgtggagtatgagatggacgagaagtccaggggacagaggt  ggatggcctgaacctcatcgacatctggaagaactcaaacggagac  acaagcactctactacgtctggaaccgcacggaactcctggccctcg  acccctacaccgtggactacctctgggtctcttgagccgggggacatg  cagtacgagctgaacaggaacaacgtgactgaccgtcactctccga  gatggtggaaatagccatcaagattctgagcaagaacccagaggct  cttctgtggtggaaggaggcaggattgaccacgggcatcacgaggg  caaggccaagcaggcgctgcacgaggcagtggaatggaccgggc  aattgggaaggcaggcgctcatgacctcttgaagacacgctgaccgt  cgtcactgcgaccactcccacgtcttcaccttggcggtacaccccc  cggggcaactctatcttgggtct</p> <p><b>(SEQ ID NO: 133)</b></p>
C20	Pancreatic lipase	M35302	<p>actcagagagcatcctcaaccctgatggattgcttctaccctgtgctt  cctacagggccttgaatctaacaagtgttcccctgccagatcaagg  gtgcccacagatgggtcactatgtgataaattgtgtcaagacaagtg  atgagacacagaaatacttctgaacaccggagattccagcaatttgc  tcgctggagatacggggttctataacattgtctgggaaaagagccactg</p>

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
			gtcaggctaaagttgcttgttgaagtaagggaataactcatcaattca atatctcaaggggattctcaaaccaggctctactcattccaatgagttg atgcaaagcttgatgttgaacaattgagaaagtaagttcttgggaata acaacgtggtaaaccaaccttccaaagtgggtgcagccaagatca ccgtgcaaaaggaggagaggagaaaacagtgcacagctctg  (SEQ ID NO: 134)
C21	Apolipoprotein CIII	M17178	agccctggaggaagaggacccctccctcctggccttatgcagggtta catgcagcagccaccaagacggcccaggacacgctgaccagcggt caggagtccagggtggcgagcgggcccagggttgatgaccgata gcttcagtccctgaaagactactgcagcagcttaagggaagttcact gggtctgggattcagcctctgaggccaaaccaactccagcctctg  (SEQ ID NO: 135)
C22	Interleukin-4	AF054833	tcacctcccaactgattccaactctggtctgcttactagcactcaccagca ccttgtccacggacataactcaatattactattaaagagatcatcaaaa tgttgaacatctcacagcgagaaacgactcgtgcattggagctgactgt caaggacgtctcactgctccaaagaacacaagcgataaggaaatctt ctgcagagctgctactgtactgcggcagatctatacacacaactgctcc aacagatatctcagaggactctacaggaacctcagcagcatggcaaa caagac  (SEQ ID NO: 136)
C23	Tissue inhibitor of metalloproteinases-1	AF077817	ctgtgcaactcccaaatcgatcatcaggggccaagttcgtggggaccgca gaagtcaaccagaccgacttaaacggcggtatgagatcaagatgac caagatgttcaagggttcagcgcttggggaatgcctcgacatccgc ttcgtcgacacccccgacctggaaagcgtctgcggatactgcacaggt cccagaaccgcagcagaggagtttctggtcgccgaaacctgcgggac ggacactgcagatcaacacctgcagttctgtggccccgtggagcagc ctgagtaccgctcagcgccggggttcaccaagacctatgctgtggct gtgaggggtgcacagtggttacctgttcatccatcccctgcaaaactgcag agtgacactcactgctgtgtgacggaccacttcctcacaggctctgaca agggttccagagccgcccactggcctgctgccaagagagccaggg atatgcac  (SEQ ID NO: 137)
C24	Ubiquitin	AB032025	gcagattttgtaaagaccctgacgggcaaaactatcaccccttgaggctc gagcccagtgacaccattgaaaatgtcaaagccaaaatccaagaca aggagggtcatccgcctgaccagcagcgtctgattttgctgggcaaac agctagaagatggccgaactctgtcagactacaatatccagaaagagt ccacctgcacttggtgcttcgctgcgaggtggcatcattgagcctcac tccgccagctggccagaaatacaactgcgacaagatgatctgcgc aagtgttatgctcgctgcacccccgtgctgtcaactgccgcaagaaga

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
			agt (SEQ ID NO: 138)
C25	Matrix metalloproteinase-2	AF095638	agcgggtcagtggaaggaggtggactctgggaatgacatctacggca accccatcaagcggattcagtatgagatcaagcagataaagatgttca aaggaccagacaaggacatagagtttatctacacggctccttctccgc cgatgcggggtctccctggacatcgaggaaagaaggagtatctcatt gcgggaaggccgaggggaacggcaagatgcacatcacctttgtg actcatcgtgccctgggaca (SEQ ID NO: 139)
C26	Interleukin-6	U12234	cctggccagatgctaaagagcaaggtaaagaatcaggatgaagtga ccactcctgaccaaccacagacgccagcctgcaggctatctgcagt cgaggatgagtgctgaagcacacaacaattcacctcatctgcgga gtctggaggattcctgcagttcagtcgagggcgttcggataatgtagc ctgggcatctaagattgctgtagtctgggcatccttctccagtcagaa acctgtgcagtgggcacaaaacttatgttctctgtgaggaactaaaa gtatgagcgttaggacactatttaattatttttaattatgatatttaa tgataggagtaatttatataagtaataagatatttatattttatgaagtcc actgaaatatttatgtattcatttgaaaaagtaacgtaaaatgctatgc ggctgaatatcctcgatgttcggagccaggt (SEQ ID NO: 140)
C27	Vascular cell adhesion molecule 1 (VCAM-1)	U32086	tggaattgaacccaaacaaggcagagtacacagacactttatgttaa tgttgcgccccagggatacaaccgtcgtggtcagccctcctccatcgtg aggaaggtagtctgtgaacatgacctgctagcgtggcctccagc tccgaacatcctgtggagcaggcggctaagtaatgggcgctgcagtc tcttctgaggatccaattctcacctaactctgcaaaaatggaagattct ggtatttatgtgtgaagggaattaaccaggctggaataagcagaaaaag aagtagaattaattatccaagttgctccgaaagacatacagcttatagctt ttcctctgagagtgtaaggaaggagacactgtcattatctcctgtacat gtggaaatgttcaaaaacttggaataatcctgaagaaaaaagcagag acgggagacacagtgctaaagtccagagatgggtcatataccatcca caagggtccagttagaggatgcggg (SEQ ID NO: 141)
C28	Phenol sulfotransferase	D29807	gctccccagacctgttgatcagaagggtcaagggtgtctacgtcgcc cgcaacgcaaaagatgtagctgtctctattaccacttctaccgcatggc caagggtgaccctgaccctgacacctgggacagcttctggagaagtt catggctggggaagtgctctatgggtcctggatcagcatgtgcaggaat ggtgggagctgagtcacactcacctgttctcactctctatgaggaca tgaaagagaacccccaaaaggagattcagaagatcctgaagttgtg ggcgctccctgccagaggagactgtggatctcattgtccagcacagt

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY			
ID#	Gene Name	Accession Number	Target Sequence
			<p>cttcaaggagatgaagaacaactccatggctaactacaccaccttatct  cctgacatcatggaccacagcatttctgccttcagaggaaaggcatctc  gggggactggaagaccacctcactgtggcccagaatgagcgcttga  tgc</p> <p><b>(SEQ ID NO: 142)</b></p>
C29	GRP94	U01153	<p>aatcccagacatcccctgatcaaagacatgctgcgacgagttaagga  agatgaagatgacaaaacggatcggatcttgctgtggtttgttgagac  agcaacgctgagatcaggctatctgctaccagacactaaagcatatgg  agatcgaatagaaagaatgcttcgcctcagtttaaacattgaccctgatg  caaagggtggaagaagaaccagaagaagaacccgaagagacaacc  gaggacaccacagaagacacagagcaggacgatgaagaagaat  ggatgcaggaacagacgacgaagaacaagaacagtaaaagaat  ctacagctgaaaaagatgaattataaattatactctcaccatttgaacct  gtgtggagaggggaatgtgaaatttaagtcatttcttcgagagagactgtt  tggatgtctcccgcagccccctctcccctgcactgtaaaatgttgggat  tgtgggtcacagaaagaagt</p> <p><b>(SEQ ID NO: 143)</b></p>
C30	E-selectin	L23087	<p>ttacacgggtgctgtcactggatgaataattgccaaggagtttagggga  aacaacttgggtcaagttatctataccaacatgcaaaaaaatatttaa  atgccacagcgagtagatggggaatcctgcttaatactttgtgcaa  ggattgctaaacacagtcctaattccctttaccctgtgggattcagtgcat  ttaaagtgttcttagagattttaaagtgttctttattgcatggctaaagtac  aatttccctaattcttaattcagtgtaagtgttagagactttaaataatg  catgttagagctatgatagggtaaaagtactatcagggatcttgtttatg  aagggaacttaattgtatctgtagtaaattcattttaaaggggcaaat  gctgtcccagctattacgtgaatcagtgtaagtgtgaatgtttactata  gttgcttttaaaaacatgaatagtggggcacctgggtg</p> <p><b>(SEQ ID NO: 144)</b></p>
C31	gastric lipase	Y13899	<p>tgcactatcatcagagcatgcctccctactacaacctgacagacatgca  tgtgccaatcgagtggtgaacgggtgcaacgactgtggtggcgacct  cacgatgttgacctttgtcttccaagctcccaatctcatttaccacagga  agattcctcctacaatcactggacttctgtggccatggatgccctca  agcggttacaatgaaattgttccatgatgggaacagataataagtagt  ctagatttaaggaaattattctttattgttccaaaatacgttcttctcacacg  tggtttctatcatgtttgagacacgggtgattgtccatggtttgatttcaga  aatgtgttagcatcaacaatcttccattggtaattttgaatttaaatgatt  ttaaatttggggcatctgggtggctcagtcggctaagtcgtctgcctcgg  cttaagtcagatctcggggctcctagatgga</p> <p><b>(SEQ ID NO: 145)</b></p>

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY			
ID#	Gene Name	Accession Number	Target Sequence
C32	HSP27	U19368	<p>ggaccctttccgcgactggtacccggcccacagccgcttctcgacca  ggccttcgggctgccccggctgccggaggagtggcgagtggttcgg  ccacagcgggtggccgggtacgtgcgccgatccccccgcggtcg  agggccccgcccggcgccgcccggcgccgcccgcctacagcc  gcgcgctcagccggcagctcagcagcggcggtgctggagatccggca  gacggccgaccgctggcgctgtccctggacgtcaaccacttcgcccc  cgaggagctgacgggtcaagacgaaggacggcggtgggagataact  ggcaagcacgaagagaggcaggatgagcatggctacatctcccgcc  gcctcactccaaatacaccctgccccctgggtggatcctaccctggc  tcctcctcctgtccctgagggcactctcacggtggaggctccatgcc  caagccagccaccagtcggcagaaatca</p> <p><b>(SEQ ID NO: 146)</b></p>
C33	IL-10	U33843	<p>cgggtccctgctggaggactttaagagttacctgggtgccaagccctgt  cggagatgatccagtttacttgaggagggtgatgcccggtgagaa  ccacgaccagacatcaagaaccacgtgaactcctgggagagaag  ctcaagaccctcaggctgagactgaggctgcgacgctgtaccgatttc  ttccctgtgagaataagagcaaggcgggtggagcagggtgaagagcgc  atttagtaagctccaggagaaagggtctacaaagccatgagtgagttt  gacatcttcatcaactacatagaaacctacatgacaatgaggatgaaa  atctgaaacgtgctggagaacaaacacccaggatggcaactcttctc  gactctaggacatgaattggagatctgaaaataccatcccgagatgta  ggagagccgaccaactgcttgagaaccccgatcacc</p> <p><b>(SEQ ID NO: 147)</b></p>
C34	caveolin-1	U47060	<p>tccgaggggacactctacaccgttcccatccgggagcagggcaacat  ctacaagcccaacaacaaggccatggcgaggagatgagcgagaa  gcagggtgtacgacgcgcacaccaaggaaatcgacctggtcaaccgc  gacccaagcatctcaacgacgacgtggtcaagattgatttgaagatg  tgattgcagaaccagaaggaacacacagtttgatggcatctggaagg  ccagcttcaccaccttactgtgacaaaatactggtttaccgctgtgtc  tgccctcttgcatccaatggcactcatatggggcatttacttgcattc  ttcttctgcatctgggcagttgtgccgtgcattagagtttctgattg  agattcagtgcatcagccgtgtctattccatctacgtccacaccttctgta  ccggttcttgaggctgttgcaa</p> <p><b>(SEQ ID NO: 148)</b></p>
C35	H-ras, p21	U62092	<p>accatccagctcatccagaaccacttcgtggatgagtagcagccccacc  atcgaggactcctatcggaagcaagtggctattgacggggagacgtgc  ctgctggacatcctggacacagcggggcaggaggatcagcgcctat  gcgggaccagtagcatgcgcacgggggagggcttctctgtgtattgcc  a</p> <p><b>(SEQ ID NO: 149)</b></p>

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
C36	rab2	M35521	<p>agacaagagggttcagccagtgcatgacctgactatcggtgtagagttg  gtgctcgaatgataactattgatggaaacagataaaacttcagatatg  ggatacggcagggcaagagtccttcgtccatcacaaaggtcatattac  agagggtgcagcaggggcttactagtgatgatattacaaggagagata  cattcaaccacttgacaacctgggttagaagatgcccgccagcattccaa  ttccaacatggtcattatgcttattgaaataaaagtgatttagaatcaag  aagagaagtaaaaaagaagaagggtgaagctttgcacgagaacat  ggacttatctcatggaaactctgctaagactgctccaatgtagaagag  gcatttataatacagcaaaaagaaatttatgagaaaatccaagaagga  gtcttgacattaataatgaggcaaacggcattaaaattggcctcagca  cgctgtactaatgccacacac</p> <p><b>(SEQ ID NO: 150)</b></p>
C37	rab5	M35520	<p>aagcctagtgctcgttttgtaagggccaatttcgaattcaagagag  taccataggggctgcttttctaacccaaactgtgtcttgatgataaac  agtaaagtgtgaaatatgggatacagctggtcaagaacgataccatag  cttagcaccaatgtactacagaggagcacaagcagccatagttgtat  gatatcaaaatgaggagtccttgccagagccaaaaactgggttaa  gaacttcagaggcaagccagtcctaacattgtaatagctttatcaggaa  acaaggctgatcttgcaataaaaagagctgtcgattccagggaagcac  agtcctatgcagatgacaacagttattatcatggagacatcagctaaa  acatcgatgaacgtaaatgaaatattcatggcaatagctaaaaagtgc  caaagaacgaaccacagaatccaggagcaaatctgccagaggaa  gaggagtagaccttactgaaccacgcagccaa</p> <p><b>(SEQ ID NO: 151)</b></p>
C38	rab7	M35522	<p>ccccaacacattcaaaaccctcgatagctggagagatgagttctatc  caggccagtcctcggaatcctgaaaactcccttcgtgtgtgggaaa  caagattgacctgaaaacagacaagtggccacaaagcgggcaca  ggcctggtgctacagcaaaaacaacattccctacttcgagaccagtg  caaggaggccatcaatgtggagcaggcgtccagacgattgaagga  atgcactaaacaggaaacagaggtggagctgtacaatgaattccctg  aaccatcaaaactggacaagaacgaccgggccaagacctcagcgg  aaagctgcagttgctgaaggggagtgagagcagagcacagagtcct  tcacaaacaaagaacacacttaggccttcaacacgagccccctcttc  tcttcaaaacaaacataaagtcatctctgaatccagctgccaaaaga  ccctaccaaacacttcaccctgacacacaca</p> <p><b>(SEQ ID NO: 152)</b></p>
C39	APO CII	M17177	<p>ctggttctgtgtgcttgcctcctgggtattgggatttgagggtccagggggccc  atgagtcaggcaagatgaaaccaccagctccgcctgctcaccag  atgcaggaatcactctacagtactggggcacagccagatcggtgcc  gaggacctgtacaagaaggcatacccaactcatggtgagaaaaat  caggacatatacagcaaaagcacagcagctgtgagcactacgca</p>

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
			gggattttcactgacc (SEQ ID NO: 153)
C40	endothelin-2	X57038	ctgtccgctctgtccccctgttgcgcacgcaggcaaggccaggtggc cgctgccccggagcatccagcaccctcagccgggcccaggctccc acctcgggcctcggtgtctcctgcagctcctggctcgacaaggagt cgctacttctgccacctggacatcatctgggtgaacactccgggtgag ctcccgggggaccaggcggtgtgtagaggcgggcaggggg tggggaacctgtagtagcacagctctccctgggctccagacggatc gctgagctgacatgaagagcggctgggtgtgtccctactcc (SEQ ID NO: 154)
C41	FGFR2	AF211257	tgattgttctctgccacaaaatgccagtagtaaaacaaacccatcgata ggaaagtattttgtgtgtgcagctctgtcattgggcccattggagcgcg gaactggactcccaagacaaatggtaccagcgttctcttaaaaagatg ccttaatccattctcgagggtggaccttagttgagatgatagcagactgt actccctccggcagctggccttctgccctgagttgcaggttaacagatt agcctgtattctctcagtggtttgataatggctccagattcattggcgtt aggggaagccttttagaatcttcacgtgtcatcgtcgaattgaaacactg agttgttctgtgtatgggtttggagatactccatcttttaagggtttgctctg tctaattctggcaggacctcacaaaagatcgggcctcgtaccaacgtc agacacgatgtcgccgtgtgtgcgttctgtattta (SEQ ID NO: 155)
C42	leptin	AB020986	gccttaccctcaggaccttgcatccagatggtaaaaatgccacacac cagtatgcaaaggctggcctcgaccatggcaactgagcagctgaac cagcgcactcctcagcaggcggaatgctgaactgagaatgtcagtg ctcagggggccacaggctaaccctgctccactctgtagcattttgctttt cagggcacggcagcatttattactgtgtagccacatccctctgaagcag cagcatagctgacaatttaaaaataagaactaagaacatacctaagac cataacggcagacaagtagcagggccgagactagagttcaggacct ctgactcccagagtgtccggggagccaggaatgtcctctggagggtgc aaataggggtgggcaggggagaccagaagtgttacaggggagagag gacttgagggtgatttgaggagggtgaggatgtgaattgcctgaatgg cggaggctgtttgtcatgc (SEQ ID NO: 156)
C43	prostaglandin D synthase	AB026988	agggtgccctgcagcccaactccaacaggataagttcctggggcgctg gttcacctcgggcctcgctccaactcgagctggttcggggagaagaa gaacgtgtgttccatgtgtatgtcagtggtggccccgacgcagacgg aggcctcaacctcacctccacctctcaggaaagaccagtgtagac tcgaacctgtcctacggccggcggaacccgggctgctacagta cacgagtccccactggggcagtaccacgacgtgtgggtggttagcca

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
			ccaactacgaggagtagcggttctctacaccgcaggcagcaaaaggc ctggccaggactccacatggccactctctacagccgacccagacc ccaaaggccgagataaaggagaaattcagcaccttggcaagacc agggcttcacagaggatgccattgtctcctgccacagactgataaatg catggaggagaacaagtaggtgaccgccgcc (SEQ ID NO: 157)
C44	paraoxonase2 (PON2)	L48515	caggactccacagctttcccagataagcctggaggatattaatgat ggatctaaaaaaggaaaacccgagggcactggaattaagaatcagc cgtgggttaatttggcttctcaatccacatggtatcagcaccttcag acagcgacgacacagttatctcttgttgaaccatccagaattcaag aatacagtggaatttttaattgaagaagaagaaattctcttctgcat ctaaaaacaatcaaacatgaacttctccaagtgtgaatgatcatagc tgttgaccagcacatttctatgccaccaatgaccactatttctgtatcct tctaaagtatttggaaacatacttgaactacactgggcaaatgtgttta ctacagtccagatgaagttaaagtggtagcagaagggttgatgcagc aaatgggatcaatatttcacc (SEQ ID NO: 158)
C45	beta-glucuronidase	AF019759	cgccgtatgtggacgtcatctgtgtcaacagttactactcttggatcacg actatgggcacatggagggtgattcagctgcagctggccaccgagttga gaactggataggacctaccagaaaccaataatccagagcgagtagc gggcagagacaattgcaggcttccaccaggatccacctctgatgtttag tgaggagtaccagaaaggctgtctgcagcagtagtactgtgtgctggat cagaaacgcaaagaatatgtggttgagagctcatctggaatttgcgtg attttatgactgaccagtcaccacagagagcagtagggaacagaaag ggcattctcactcgccagagacaacccaaagcggcgcccttctttgc gagagaggtagtggaacttgccaatgaaaccgggcaccaccgggtc cgcgccaagtccagtggttgaaaacagcccggttcgcctctgaag cctctgtct (SEQ ID NO: 159)
C46	caveolin-2	AF039223	ctccagggtgggcttcgaggacgtgatcgcgacgcggtgtctacgcact ccttgacaaagtgtggattgcagccatgccctgttgaggctcagcaagt acgtgatctacaagttcctgacgtgtcctggcgatgccatggccttcg cggcaggggttctctcgcaccctcagctgcctgcacatctggattata atgccttcgtgaagacctgcctcatggtcctgcctcggtgcagaccata tgaagagtgtacagatgctgtcattgccccgtgtgttcaagtgtagg acgcagcttctctgtcagcttgcaagttagtcacgactgagcacttg acccca (SEQ ID NO: 160)



TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
C47	matrix metalloproteinase-14	AF032025	<p>ttctcaaaggagacaagcactgggtgtttgatgaagcttcttgaacct  ggctacccaagcacatcaaggagctgggcccaggactgcctactga  caaatcgatgctgctcttcttgatgccaatggaaagacctacttct  ccggggaacaagattaccgtttcaacgaggaactcagggcagtgga  acagcgagtacccccaaaaacatcaaggctctgggaaggaatccctga  gtctcccagagggtcattcatgggcagtgatgaagtctcacttactcta  caaggggaacaaatactggaaattcaacaaccagaagctgaaggta  gagccaggcta</p> <p><b>(SEQ ID NO: 161)</b></p>
C48	matrix metalloproteinase-9	AB006421	<p>gattctcaagggaaggacgcccgggtgcagggcccttcttatcac  cgagcacgtggcctgcgtgccccgcaagctggactccgccttgagg  acgggctcaccaagaagactttcttcttctggcgccaagtgtgggtg  tacacaggcacgtcgggtgtagggccgaggcgctctggacaagctggg  cctgggcccggagggtaccgaagtcaccggcgccctcccgaagcgg  ggggaagggtgctgctgttcagcaggcagcgttctggagtttcgacgtg  aagacgcagaccgtggatcccaggagcgccgctcgggtggaacag  atgtacccgggggtgccctgaacacgcacatgacatcttcagttaccaag  agaaagcctactctgccaggaccgcttctactggcgtgtgaattctcgg  aatgagggtgaaccagggtggacgaagtgggctacgtga</p> <p><b>(SEQ ID NO: 162)</b></p>
C49	IL-8	U10308	<p>gtggccacattgtgaaaactcagaaatcattgtaaagctttcaatgga  aatgagggtgcttgaccccaaggaaaaatgggtacaaaagggtgt  gcagatatttctaaagaaggctgagaacaagatccgtgaaacaaca  aacacattctctgtggttccaagaattcctcaggaaagatgccaatgag  actcaaaaaaatctatttcagtactcatgtcccgtgtagacctgggtgag  gattgccagataaaaaatacagtatgccagttagattggaatattaagta  aaacaatgaatagtttttctaaagtctcatatgttgccctattcaatgtct  aggcacacttacattaaacatatattcattgttgctgtaaatcaaatgta  gctggaaatcctggatataattgtgtgtgtacatcttccacctcacctaca  ggccaggatgcatgagtcctttcaaccttgcccttggtc</p> <p><b>(SEQ ID NO: 163)</b></p>
C50	keratinocyte growth factor	U80800	<p>caatgacatgactccagagcaaatggctacaaatgtgaactgtccag  ccctgagcgacatacaagaagtattgattacatggaaggaggggatat  aagagtgaagaagactcttctgtcgacacagtggtatctgaggattgat  aaacgaggcaaaagtcaaagggacccaagagatgaagaacagttac  aatatcatggaaatcaggacagtggcagttggaatagtggaatcaaaa  ggggtggaaagtgaatattatcttgcaatgaataagggaaggaaagctct  atgcaaagaagaatgcaatgaagattgcaacttcaagaattaattct  ggaaaaccattacaacacatatgcatcagctaaatggacacacagcg  gaggagaaatgttgtgtcttaaatcaaaagggggtcctgtaaggggg  aaaaaacgaagaagaacaaaaaacagcccactttctcctatggc</p>

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY			
ID#	Gene Name	Accession Number	Target Sequence
			aa
			<b>(SEQ ID NO: 164)</b>
C51	decorin	U83141	<p>gattgaaaatggagcctccagggaatgaagaagctctcctatatccgc  attgctgataccaatataactaccatccctcaaggctctcctcccttac  tgaattacatcttgaaggcaacaaaatcaccaaggtgatgcatctagc  ctgaaaggactgaataatttggctaagttgggactgagtttaacagcat  ctccgctgttgacaatggcactctagccaacactcctcatctgaggag  cttcacttggaacaataagctcatcagagtacccggtgggctggcg  gagcataagtacatccagggtgtctaccttcataacaacaatatatctgc  agtcggatctaatagtactctgccacctggatacaacacaaaaaggct  tctattcagggtgagcctttcagcaaccagtgagctactgggagatc  cagccatccacctccggtgtgtctacgtgcgctcgtccatccagcttga  aattat</p> <p><b>(SEQ ID NO: 165)</b></p>
C52	glucose-6-phosphatase	U91844	<p>ctggggatctcagctgcaggattttctacctgtcccatcctacaagaaaa  gggaaaggagcagtgccatttgatagagaagaagaatggattaagg  aaagacttctcgtatcctgcataatcatgcaaatcatgttacacaaaatct  aaatcgcttgattatattgaatttttaggtaaggaaactctcaatagtggg  gaccaactaaagcataactaataggtagttaattgggtaattctgcttct  tctatgtttctactatgtattcagtgacctagatttggctgggtcagagcatt  cagatatagtcagcttctctatcacactacatcttccctgtcagcctag  ctcagctttccctagaactttccactgctctacatcgctgctgacacagaga  tgccataaaggcagctctagggtagtgtctttgtatggttagtcaagctctg  aaatcttgggcaaaaaggtaggagagggcaaggagaggaaagg  at</p> <p><b>(SEQ ID NO: 166)</b></p>
C53	TGFB1	L34956	<p>gacccttctgctcctcatggccacccactggagagggccagcacc  tgcacagctcccggcagcgccgggcccctggacaccaactactgcttca  gctccacggagaagaactgctgctccggcagctctacattgacttccg  caaggatctgggctggaagtggatccatgagcccaagggttaccacg  ctaacttctgctggggccctgcccctacattggagcctggacacgca  gtacagcaaggctcctggccctgtacaaccagcacaacccgggcgct  cggcgggcgctgctgctgctgcccagggcgtggagcactgcccac  gtgtactacgtgggcccgaagccaagggtggagcagctgtcgaacat  gatcgtgctgctcgtgaagtgcagctgagggccccgccccgtccggcag  gccccgcccacggcaggncggccccgccccgccccgctgcgc  gggctgtatttaag</p> <p><b>(SEQ ID NO: 167)</b></p>

TABLE 2 TARGET SEQUENCES FOR CANINE ARRAY

ID#	Gene Name	Accession Number	Target Sequence
C54	ZAP36/annexin IV	D38223	<p>gacacgtcctcatgttccagaggggtgctggtgctgctgctggccgggtgg  cagggatgaaggaaatttctggacgatgctctcatgagacaggatgct  caggacctgtatgaggctggagagaagaaatggggaacagatgagg  tgaaatttctgactgttctgctcccgaaccgaaatcacctgttgcattg  gtttgatgaatacaaaaggatatcacagaaggatattgagcagggtatt  aaatctgaaacatccggtagcttgaagatgctgctgctggccatagtaaa  gtgcatgaggaacaaatctgcatacttctgaaaggctttataaatctat  gaagggctgggaacagatgataacaccctcatcagggttatggtgct  cgagcggagatcgatatgatggacatccgggagagcttcaagaggctt  tacggaaagtctgtactcctcatcaagggtgacacatctgg</p> <p><b>(SEQ ID NO: 168)</b></p>
C55	N-ras	U62093	<p>gttgagcaggtggtgtgggaaaagcgactgacaatccagctaatac  cagaaccactttagatgaatatgatccaccatagaggattctaccg  aaaacaggtggtatagacgggtaaaccctgtctgttgacatactggat  acagctggtcaagaagagtacagtgcctagagagaccaatacatgag  gacaggcgaaggcttctgtgtatttgc</p> <p><b>(SEQ ID NO: 169)</b></p>
C56	K-ras	U62094	<p>gtagtggagctggtggcgtaggcaagagtgccttgacgatacagcta  attcagaatcactttaggatgaatatgatcctacaatagaggattcctac  aggaaacaagtagtaattgatggagaaacctgtcttggatattctcga  cacagcagggtcaagaggagtacagtgcattgagggaccagtacatg  aggactggggagggtcttctgtgtatttgc</p> <p><b>(SEQ ID NO: 170)</b></p>
C57	p38 MAPK	AF003597	<p>ctggtgacctatctatgggagcagatctgaacaacattgtgaaatgtca  gaagcttacggatgacctgttcagttccttatctacaaattctccagg  tctcaagtatatacattcagctgacataattcacagggaacctaaacctta  gcaatctagctgtgaatgaagactgtgagctgaagatcctggacttgg  actggcccgacatacagatgatgaaatgacaggctatgtggctaccag  gtggtacagggctcctgagataatgctgaactggatgcattacaaccag  acagttgatatttggcagtggtgataatggccgaactgttgactgg  aagaacgtgttctcgtgacagacctatgatcagttgaagctcatttta  agactcgttgaacccaggggtgatctttgaagaaaatctcctcag  agtctgcaagaaactacattcagcttggaccagatgccgaagatgaa  cttgcaaa</p> <p><b>(SEQ ID NO: 171)</b></p>

Please substitute **TABLE 3 50-mer target sequence for canine arrays** with **TABLE 3 50-mer target sequence for canine arrays** amended as follows:

**TABLE 3 50-mer target sequence for canine arrays**

ID#	Gene Name	GenBank Accession Number	50-mer sequence
C58	Cytochrome P450 2D	D17397	ccggctcctcagcaggggccgaggtacaat aaaccagtttggtgctcc <b>(SEQ ID NO:172)</b>
C59	Cytochrome P450 2B	M92447	aactcaaataaacatcaaaagcctgacatcc cctggtcagggtgtgagcc <b>(SEQ ID NO:173)</b>
C60	Cytochrome P450 2C41	AF016248	ccagtgaacatccaacctccattaaaggaaa gtctccagaatttcttgc <b>(SEQ ID NO:174)</b>
C61	Cytochrome P450 2C21	AF049909	tatctctgcctctctgtgtgtgtctctcatgaa taaataaaatctt <b>(SEQ ID NO: 175)</b>
C62	Cytochrome P450 3A	X54915	gtgacacagaatgagaaactcttaactctggg aatgtacaagggatagt <b>(SEQ ID NO: 176)</b>

Please substitute **Table 6** with **Table 6** amended as follows:

<b>Table 6</b>				
ID #	Gene Name	Left PCR primer sequence	Right PCR primer sequence	Target Sequence on canine array
C64	Gadd45	AACTGA ACCAAA TTGCACT GAA  <b>(SEQ ID NO: 177)</b>	CCATG TAGCG ACTTT CCCG  <b>(SEQ ID NO: 178)</b>	CGCGTCTAGAAACTGAACCAAATTGCACTGAA GTTTTGAAATACCTTTGTAGTTACTCAAGCAGT TACTCCCCACACTGATGCAAGGATTACAGAAA CTGATGTCAAGGGGCTGAGTGAGTTCAACTAC AGATTCCGGGGGCCCGGAGCTAGATGACTTTG CAGATGGAAAGAGGTGAAAATGAAGAAGGAA GCTATGTTGAAACAAATACAAGTCAAAAGGAA CAAAAATTACAAAGAACCATGCAGGAAGAAG CTTGCC <b>(SEQ ID NO: 179)</b>

C65	Super-oxide dismu-tase Mn	AACAAC CTGAAC GTCACC GA  <u>(SEQ ID NO: 180)</u>	TCTCC CAGTT GATTA CATT CAAA  <u>(SEQ ID NO: 181)</u>	GCGCGAATTCAACAACCTGAACGTCACCGAGG AGAAGTATCTGGAGGCGCTGGAGAAGGGTGAC ATTACAGCTCAGATAGCTCTTCAGCCTGGGCTC AAGTTCAATGGAGGAGGTCATATCAATCATT CATCTTCTGGACAAACCTGAGCCCTAAGGGTG GTGGAGAACCAAAAGGGGAATTGCTGGAAGC CATCAAACGTGATTTTGGTTCCTTCGACAAATT TAAGGAGAAGTTGACCACTATATCCGTCGGTG TCCAAGGCTCAGGTTGGGGTTGGCTTGGTTTCA ATAAGGAGCAGGGACGCTTGCAGATTGCTGCT TGTTTTAACCAGGATCCCCTGCAAGGAACAAC AGGTCTTATTCCACTACTGGGGATCGATGTGTG GGAGCATGCTTATTACCTTCAGTATAAAAATGT CAGACCGGATTATCTAAAAGCTATTTGGAATG TAATCAACTGGGAGAAAGCTTGGCC <u>(SEQ ID NO: 182)</u>
C66	UV Excision repair protein RAD23 (XP-C)	GAAAGT CAGGCT GTGGTTG A  <u>(SEQ ID NO: 183)</u>	TGGCA GCCAA ATTCT CATT  <u>(SEQ ID NO: 184)</u>	CGCGGGATCCGAAAGTCAGGCTGTGGTTGACA CCCCCCCCGAGTCAGCACTGGGGCTCCTCCAT CTTCGGTGGCAGCTGCTGCAGCAACTACAACA GCGTCAACAACACAGCGAGTCCTGGAGGACA TCCCCTTGAATTTTTACGGAATCAGCCTCAATT TCAACAGATGAGACAAATTATTCAACAGAATC CTTCCCTGCTCCCAGCATTGCTACAACAGATAG GTCGAGAAAAATCCTCAATTACTGCAGCAAAAT AGCCAGCACCAGGAGCATTTTATTTCAGATGTT AAATGAACCAGTTCAAGAAGCTGGTGGTCAAG GAGGAGGGGGTGGAGGTGGCAGTGGAGGAAT TGCAGAAGCCGGAAGTGGTCATATGAACTACA TTCAAGTAACACCTCAGGAAAAAGAAGCTATA GAAAGGTTAAAGGCACTAGGATTTCTGGAAG ACTTGTGATACAAGCGTATATTGCTTGTGAGA AGAATGAGAATTTGGCTGCCAAAGCTTGGCC <u>(SEQ ID NO: 185)</u>
C67	Proliferating cell nuclear antigen gene	GATAAC GCGGAT ACCTTGG C  <u>(SEQ ID NO: 186)</u>	AGTGT CCCAT ATCCG CAATT TT  <u>(SEQ ID NO: 187)</u>	GCGCGGATCCGATAACGCGGATACCTTGGCGC TGGTATTTGAAGCACCAAGAACAGGAGTACAG CTGTGTAGTAAAGATGCCTTCTGGTGAATTTGC ACGTATATGCCGAGATCTCAGCCATATTGGAG ATGCTGTTGTAATTTCTGTGCAAAAGACGGA GTGAAATTTTCTGCGAGTGGAGAAGTTGGAAA TGGAAACATTAAATTGTCACGGACAAGTAATG TCGATAAAGAGGAGGAAGCTGTTACCATAGAG ATGAATGAACCAGTTCAACTAACTTTTGCCTG AGGTACCTGAACTTCTTTACAAAAGCCACTCC ACTCTCTTCAACGGTGACACTCAGTATGTCTGC AGATGTACCCCTTGTGTAGAGTATAAAATTGC GGATATGGGACACTAAGCTTGGCC  <u>(SEQ ID NO: 188)</u>

C68	Glucose-regulated protein 94	CTGTGGT GTCTCTG CGCCT  (SEQ ID NO: 189)	TTTCA GCTGT AGATT CCTTT GCTG  (SEQ ID NO: 190)	CGCGGGATCCCTGTGGTGTCTCAGCGCCTGAC AGAGTCTCCGTGTGCTCTGGTGGCCAGCCAGT ATGGATGGTCTGGCAACATGGAGAGAATCATG AAAGCTCAAGCATACCAGACGGGCAAAGACAT CTCTACAAATTACTATGCCAGCCAAAAGAAAA CATTTGAAATTAATCCCAGACATCCCCTGATCA AAGACATGCTTCGACGAGTTAAGGAAGATGAG GATGACAAAACGGTATCGGATCTTGCTGTGGT TTTGTGTTGAGACAGCAACGCTGAGATCAGGCT ATCTGCTACCAGACACTAAAGCATATGGAGAT CGAATAGAAAGAATGCTTCGCCTCAGTTTAAA CATTGACCCTGATGCAAAGGTGGAAGAAGAAC CAGAAGAAGAACCCGAAGAGACAACCGAGGA CACCACAGAAGACACAGAGCAGGACGATGAA GAAGAAATGGATGCAGGAACAGACGACGAAG AACAGAAAACAGCAAAGGAATCTACAGCTGA AAAAGCTTGGCC (SEQ ID NO: 191)
C69	Gluta- thione S- trans- ferase alpha subunit	CAGAGA AGCCCA AGCTCC AC  (SEQ ID NO: 192)	ACCAG ATGAA TGTC GCCCC  (SEQ ID NO: 193)	CGCGGGATCCCAGAGAAGCCCAAGCTCCACTA CTTCAATGGACGAGGCAGAATGGAGTCCATCC GGTGGCTCCTGGCTTCAGCTGGAGTAGAGTTT GAAGAGAAATTTATAAATGCTCCAGAAGACTT GGATAAATTAATAAATGATGGAAGTCTGATGT TCCAGCAAGTGCCAATGGTGGAAATTGATGGA ATGAAGCTGGTACAGACCAGAGCCATTCTCAA CTACATTGCCACCAAATACAACCTCTATGGGA AAGACATAAAGGAGAGAGCTCTGATAGATATG TACACAGAAGGTATAGTAGATTTGAATGAAAT GATCATGGTTTTGCCTCTATGCCCACCTGATCA AAAAGATGCCAAGATTACTCTGATCAGAGAGA GAACAACAGATCGTTATCTCCCCGTGTTTGAA AAAGTGTTAAAGAGCCATGGACAAGACTACCT TGTTGGCAACAAGCTGAGCCGGGCTGACATTC ATCTGGTCTCGAGGGCC (SEQ ID NO: 194)
C70	BR- cadherin	GTCCGTG GCAGAG TCCCTCA GCTCTAT  (SEQ ID NO: 192)	CACCG TGATG CCACA TAGCT ATCTT CG  (SEQ ID NO: 196)	GTCCGTGGCAGAGTCCCTCAGCTCTATAGACTC TCTCACCACAGAGGCTGACCAGGACTACGACT ATCTGACAGACTGGGAACCCCGCTTTAAAGTC TTGGCAGACATGTTTGGGGAAGAAGAGAGTTA TAACCCTGATAAAGTCACTTAGGGCAGAAGCC AAGGATAAAACACAACCAAAAGGAGAAATTT AAAAGAAACACAAATAGAAATCTCTCTCTC ACACACACACACATGCATACATGCACGTGCAC ACACAGACACACAGACACACACACCAGGCTTT GTAGGACACAATCATTTGATGATCTGGTTTCTA GCAAGTTGCTGTAGTTATCATATTGTCAAGTTT TGTTTTACTCTGCCAACACAAGATAAATCCTAT TACATGTACTTGCTTGGTTTTGTTTTGTTCTTTT GGATACACACTGAGACAAGCTCAGGCCTATTA AATACAATTTACTGACATGACAACATAGAACG AAGATAGCTATTGGCATCACGGTG (SEQ ID NO: 197)

C71	N-cadherin	GGAGCC TGATGCC ATCAAG CCTG  <u>(SEQ ID NO: 198)</u>	GGTTT GCAGC CTATG CCAAA GCC  <u>(SEQ ID NO: 199)</u>	GGAGCCTGATGCCATCAAGCCTGTAGGAATCC GACGATTGGATGAGAGACCCATCCACGCCGAA CCCCAGTACCCGGNCCGATCTGCAGCCCCGCA CCCTGGGGACATCGGGGACTTCATTAATGAGG GCCTTAAAGCTGCTGACAATGATCCCACAGCT CCACCATATGACTCCCTCTTAGTCTTTGACTAC GAAGGCAGTGGCTCTACCGCTGGGTCTTTGAG CTCCCTTAATTCTTCAAGTAGTGGTGGCGAGCA GGACTATGACTACCTGAACGACTGGGGGCCAC GGTTCAAGAACTTGCTGACATGTATGGTGGA GGTGATGACTGAACTTCAGGGTGAACCTGGTC TTTTGGACAAGTACAAACAATTTCAACTGATAT TCCCAAAAAGCATTTCAGAAGCTAGGCTTTAAC TTGTAGTCTACTAGCACAGTGCTTGCTGGAGG CTTTGGCATAGGCTGCAAACC <u>(SEQ ID NO: 200)</u>
C72	Mek5	TCATGG ATGGGG GATCTTT GGATG  <u>(SEQ ID NO: 201)</u>	GGGTG GCCCA TCAAT TCTTC AGGT  <u>(SEQ ID NO: 202)</u>	GGGTGGCCCATCAATTCTTCAGGTGCTGGTCTT TCTTTCGGTTGTTTTTCGCATGCACTGAGTGATG AAATGTACAAATGGCTCGGAGAACTCTCCAAC CGGAAGGACGGGCGAATCCTCATCAACAATGC ACTGCAGAAGCTGGAGAGGCTCCATGAAAGAG ATTCTAAACTCCGGACATCAGAATGGATTCC ATACTGCTCCCCTGAAATTCTTTTCAGGCGCCAT ATAAGCATTGTTCACACATACGTCTTGGCTAT AGAATTCACCAGCTGAGTGCTAACTCCAAAAT CGCACAGCTTGACCTGTCTCTTGTGTTTACTA GCGTATTGGAGGGCTTCACATCTCTATGTAAA ATCTTTAACTCCACAAGTAGGTAAGGCCTTTA ACAACTGCTATTGCAATTCTTCCAAGGACATGC TCTGGAATTTTCTATATACATCCAAAGATCCC CCATCCATGA <u>(SEQ ID NO: 203)</u>
C73	Glucose transporter	GCAGCA GCCTGTG TATGCCA CC  <u>(SEQ ID NO: 204)</u>	AAGCC GGAA GCGAT CTCAT CGAA  <u>(SEQ ID NO: 205)</u>	AAGCCGGAAGCGATCTCATCGAAGGTCCGGCC TTTGGTCTCAGGAACCTTTGAAGTAGGTGAAGA TGAAGAACAGAACCAGGAGCACGGTGAAGAT GATGAAGACGTACGGACCACACAGTTGCTCTA CATACTGGAAGCACATGCCCCACAATGAAATTT GAGGTCCAGTTGGAGAAGCCAGCAACAGCAAT GGCAGCTGGGCGAGGACCCTGGCTGAGGAGTT CAGCCACAATGAACCATGGGATGGGGCCAGGG CCCCTTCAAAGAAGGCCACAAAGCCAAAGAT GGCCACGATGCTGAGATACGACATCCAGGGCA GTTGTTCCAGCAGCGCCAGCGCATGGTCATG AGCACGGCACAGCCCCGCCATGCCAGCCAGGCC TATGAGGTGCAGGGTCCGCCGGCCGGCGCGTT CCACCACGAACAGCGACACCACGGTGAAGGCC GTGTTACGATGCCGGAGCCGATGGTGGCATA CACAGGCTGCTGC <u>(SEQ ID NO: 206)</u>
C74	SHB (Src homology 2 protein)	CGCCGA TGAGTA CGACCA GCCTT	GCTCA GCCCC TTTGA TGGGT AGC	CGCCGATGAGTACGACCAGCCTTGGGAGTGGA ACCGGGTCACCATCCCAGCTCTGGCAGCCCAG TTTAATGGCAACGAGAAACGGCAATCATCCCC CTCTCCTTCCCGGGACCGGCGCGCCAGCTTCG AGCTCCTGGAGGGGGCTTCAAGCCCATTAAGC

		<b><u>(SEQ ID NO: 207)</u></b>	<b><u>(SEQ ID NO: 208)</u></b>	ATGGGAGCCCTGAGTTCTGTGGGATCTTGGGA GAAAGAGTGGATCCTGCTGTCCCGCTGGAAAA GCAAATCTGGTATCACGGAGCCATCAGCAGAG GAGATGCTGAGAACCTTCTGCGGCTCTGCAAG GAGTGCAGCTACCTTGTCCGGAACAGCCAGAC AAGCAAGCACGACTATTCCCTCTCTTTGAAGA GCAACCAGGGCTTTATGCACATGAAACTGGCC AAAACCAAAGAGAAGTATGTTCTGGGTCAGAA CAGCCCCCGTTTCGACAGTGTCCAGAAAGTCA TCCACTACTATAACCACCAGAAAGCTACCCATC AAAGGGGCTGAGC <b><u>(SEQ ID NO: 209)</u></b>
C75	Ear-3 (v- erbA related) or Apolipoprotein AI regulatory protein (ARP-1)	TGCAGA TCACCG ACCAGG TGTCC  <b><u>(SEQ ID NO: 210)</u></b>	CATAT CGCGG ATGAG AGTTT CGATG G  <b><u>(SEQ ID NO: 211)</u></b>	TGCAGATCACCCGACCAGGTGTCCCTGCTTCG CTCACCTGGAGCGAGCTGTTTGTGCTGAATGC AGCACAGTGCTCCATGCCCCCTCCACGTCGCCC CGCTCCTGGCCGCCGACAGGCCTACACGCCTCA CCCATGTCCGCCGACCGAGTGGTTCGCTTTATG GACCACATACGGATCTTCCAAGAGCAAGTGGA GAAGCTCAAAGCGCTGCACGTCGACTCCGCCG AGTACAGCTGTCTCAAGGCCATAGTCCTGTTCA CCTCAGATGCCTGTGGTCTCTCTGATGTAGCCC ATGTGGAAAGCTTGCAGGAAAAGTCCCAGTGT GCTTTGGAAGAATACGTTAGGAGCCAGTACCC CAACCAACCAACACGATTTCGAAAGCTTTTAC TTCGCCTCCCTTCCCTCCGCACGGTCTCCTCCT CAGTCATAGAGCAATTGTTTTTCGTCCGTTTGG TAGGTAAAACCCCCATCGAAACTCTCATCCGC GATATG  <b><u>(SEQ ID NO: 212)</u></b>



Please substitute **Table 7** with **Table 7** amended as follows:

<b>Table 7</b>			
<b>Band #</b>	<b>Genbank Gene Name</b>	<b>Accession</b>	<b>Sequence</b>
CTP1D	No significant match		GACTGAGACCATTTATTCNAG ACACGCAGCTGACCAAGGAGT GAGGGAGGGACCAGGTGTGC AAGCTAATAAATAGAGGAGGG GGAGACTTCCTGGAGCTGTAG CCATTCAGTCTTCATTCTTCTC AGGCATGAAGGCATCTCTTTT CTGACCAAAGCTT ( <b>SEQ ID NO: 213</b> )
CTP1G	No significant match		AAGCTTTGGTCAGCAATTATAT TAGTTTGCATTTTAGTGACAG GTGTAAGAGAAAGGCCCTTC TTCCCTTACTGGGACAAATCT AGAAATCTTACACAGATGTGC AAATAAAGCTCGCGTGGTGTT C ( <b>SEQ ID NO: 214</b> )
CTP3B	Homo Sapien N-myc downstream regulated (NDRG1)	BC003175	GCAAAGTTACAAATTTATTGGT CTGGAAATAAATACAAATATCT GATTAAGAACTTCTCTGGAA AGACTTGTAACAACAGTTTTTC CTGTCTCGATTACGCCACTCC TGCCCTGACCAAAGCTT ( <b>SEQ ID NO: 215</b> )
CTP4B	No significant match		GAGCAGCAGTGAGCAAAACC CACGAAGTTGTTTTAAGGTTA CAGCTATGAATAAACATTGTC CAAACAATGAAGATTTAGGGC TGAAGAACGAGCGTATGTCTA CAGTCGAAGCTT ( <b>SEQ ID NO: 216</b> )
CTP7B	No significant match		CAGGTGCAAGAGGTTTGTGTTG GGAGGTAATCCTAGAAACCAC AGAAGGGGGTGGGGATAGGA GGGATGGCAGGAAAACCAGT AAGAAGTGTGTTATTGAGAAG GTTATCACTGTGGACAACTGG CACAGAATACACTTCAGAGCT GTCGCCCTGAGGGACAATGA CGCCAAGGTCTTTTCTCTAA GTCCTGTTTCTTATAGGCCGA GGGTGGCTCCTGGGAGCAGT AACTGCCAACAGTCGAAGCTT ( <b>SEQ ID NO: 217</b> )

CTP8A	No significant match		AAGCTTGATTGCCCATACCTG AGCCATTGATATATTTGAAAAT TATGGCACAAATGGAAGAGAA CCACATTTGAAAAGCTTCCAG CCTTTCAACAGAAGATAACTCT TCTTGTTTTGCAGATTGAGCA GATAATTTCTTTTGAAGGTGAT AGTTTCCTAAATTGGATAAAAC CGTGGCTGCCATTATATTCAC AGAAAATAAAATGAAAACCTCA GTTAATTGTGGATTTG <b>(SEQ ID NO: 218)</b>
CTP8C	Human DNA sequence from clone RP4-734P14 on chromosome 20	HSJ734P14	CAATATTCTTAAGAGTTTATTA TAACTAGTTTCACAGGCTAC AAGGAAGTATTTAGGACTATG TACAGCCTGACGGGAAACAG GCAGGGAGCTGAGGAGGGCC AAGATGAGTCTAGGGCCTTGG TGGGCGCATTCCCGGGGGAG GGGGCCCTGAAAGGGAAACC AGACAATCCTGTGAGACTCCA AGAACAACGGCATAACAAACA AACACGTCTGTGGCAATCAAG CTT <b>(SEQ ID NO: 219)</b>
CTP10Y	Canis familiaris mitochondrion	CFU96639	AGTAGATGGGACCGAGAATAA TTTTAGGGTTAAGGGATAGGA GGAGTAGGGGCAGTAGGTGC AAGGTCATTAGGGCATTCTTCT CGTGTGAATGATGGTTTGATA TTTTTGATATGGTGGGAATATT TACCACGTTGTGTGGTGATTA ATATATAAAGTGAGTATAGGG CGGTAAAAGCTT <b>(SEQ ID NO: 220)</b>
CTP11A	cyclin-dependent kinase inhibitor 1A (p21, Cip1),	BC001935	ACTAAGAAATATTTATTGAGCA CCTGCTGTGTACCCAGCACTG CGGGAGGGGCTGTGAGAGAC CCAGGGCAGTACAGGACTTGT TCTTGCCCTTCAGAGGCTTAT AGTCTAGGTGGAAACAGGAGA ACCAGGACACATGAGGAGCC AGGAGAAAACAGTACAGGCCA GGATGTTACAGGAGCTTACAG TGTTTGGGGTCAGACCCACTA AGTGCTTCAGTACCTCTAGGG GCTCAATGTTTACGGGCCAGAA GAGACAATAACTCACAACCTAG CCCATGTAGCATGCCCTATCC ACAGCGTCTACCTCTGCTATC TTAAACATCTGACTCCTCGTT AAGCTT <b>(SEQ ID NO: 221)</b>

CTP16B	Homo sapiens cDNA FLJ20541 fis, clone KAT11364	AK000548	CAAAGAATTTTGTATTATTATA GTACATGAGCTGGACTGATGG GAAAGGGTAGGTGTATGGGC AACCACTGCCCAGATTAGCAT CGGATGCCCATCCCGATGGC CATGAATGTGCCAAATGTGCC GCCACTCTGCATCATGGTTTT CCCGATGCCGCCCATCAGCTC CCGACCCCGCATTCCGATCCT GAGACAGGAAAAGGTGCCGA AGAGCGCCCCGGCCGCCATG CCCACTGCACAACCCATCACA AAGCCCATCTTCACGCGGTAA AAGCTT (SEQ ID NO: 222)
CTP17G	No significant match		CATATATATTCTTTTTTATTCT TGTTATACCTTCCCAAACAGA GACATTCAACAGTAGTTAGAA TGGCCATCTCCCAACATTTTAA AAAACTGCACCCCCCAATGG GTGAACAAAGTAAAGAGTAGT AACCTAGAGTTCAGCTGAGTA AGCCACTGTGGAGCCTTAAGT GGTGAGGTCTTCCAATTTTCA AGTGATGTGTCTTCAACTTGTA TCATCATTTTAGCGGTAAAAG CTT (SEQ ID NO: 223)
CTP18B	No significant match		CCAAAGAAGTGTTTATTAACAT TTGGGGCCTCAGCGGGGCCA GAGAGGAAGTGGGTGCTAGA GGCTCCTGAGGCTCAGGGCA AGGCCTGCAAGACAGATCCCA TTGCTCAGGAGGCAGCCCAG ATTGCAAATGGAAGACAGG (SEQ ID NO: 224)
CTP19F	Homo sapiens chromosome 5 clone CTB-187A7	AC008651	AAGCTTTTACCGCAATGAGGG ATTTATACATGAAAAATGGACA AGGCTTTGCATTAGTTTACTCC ATCACAGCACAGTCTACATTTA ATGATTTACAAGATCTGAGAG AGCAGATTCTTCGAGTTAAAG ACACTGATGATGTAAGCTGAC TTCCTAATAAATATATTTTACTT G (SEQ ID NO: 225)

CTP20B	Bos taurus ribosomal protein L30 mRNA	AF063243	AAGCTTAACGAGGACAGGCCA TCAGGGCTGCCAAGGAAGCA AAAAAGGCTAAACAAGCATCT AAAAAGACAGCAATGGCTGCT GCTAAGGCTCCACAAAGGCA GCACATAAGCAAAAGATTGTG AAGCCTGTGAAGGTTTCCGCA CCCCGAGTTGGTGAAAAACGC TAAGTTTTAGTGGATCAGATTT TTAAATAAACATCTGACTCTAA CT ( <b><u>SEQ ID NO: 226</u></b> )
CTP21A	Rattus norvegicus ribosomal protein L31 (Rpl31),	NM_022506	CATGGAGCNGTTTTATACCTTT ATTTGACAATCAGCGATTAGTT CTCATCCACATTAAACAGTCTGT AGATTTTTGAAAGTGGTGACA GGTACGTAGGTAACCAAGCTGT TAGAGCTTGTGTTGGTGAATCTT CATCCTCGTTAAGCTT ( <b><u>SEQ ID NO: 227</u></b> )
CTP22C	Canis familiaris mRNA for ubiquitin-ribosomal protein L40, fusion	AJ388512	CAATGGTGTCACTGGGCTCGA CCTCAAGGGTGATAGTTTTGC CCGTCAGGGTCTTCACAAAGA TCTGCATCTCTGCGTCTGCTG GAGCGAACTCGCAAGGCCGC CGCCACCAAACCGCTCGCCC ACCTCGTTAAGCTT ( <b><u>SEQ ID NO: 228</u></b> )
CTP25D	No significant match		AAGCTTGCACCATATATATAAC TCTTGGGCAGAGGGTCTGGC ATACATAAGTAGATACTCAGAA ATATCTGTTGGATTGTGTTGAT TTAATTATTTTTGTGTTGCTTC TTTTAAAGATGAGCACTTTCTA TTAGATATTTTTTTGATCAAAA AAAAGATATTTTTTTGATCATA CAGATTTAAGCAGGATTTTTAT TAATTCGTTTCTCTTCCTGGTT GG ( <b><u>SEQ ID NO: 229</u></b> )
CTP26A	Canis familiaris chymase gene	U89607	CATGAGAGAGACGGAAAGAG AGGCAGAGACACAGGCAGAG AGAGAAGCAGGCTCCATGCA GGGAGCCTGACGAGGGACTC GATCCCAAGACTCCAAGATCG TACCCTGGGCCAAAGGCAGG AGCTTAACCGCTGAGCCACCC AGGTGTCCCACTGTGAGGGT TTTAAAAGAGTGAGTGAAATTT GGGGAAATATCAAGGCACAGT CATATTCATAAACATAATACGT TGAGAAGCTT ( <b><u>SEQ ID NO: 230</u></b> )

CTP26B	H.sapiens cycA gene for cyclin A	X68303	AAGCTTCTCAACGTATATGGT GTACAGTTTTTGTAAAGGTTTTA ATTTTACAATCATTCTGAATAG TTATGGTCAAGTACAAATTATG GTATCTATTACTTTTTAAATGG TTTTAATTTGTATATCTTTTGTA CATGTAACATCTTAGTTATTT GGCTAATTTTAAGTGGTTTTGT TAAAGTATTAATGATGCCACCT GTCAGCACATAAGAGTAAGA ACTAATAAATGGATTGG ( <b>SEQ ID NO: 231</b> )
CTP27C	Homo sapiens CTCL tumor antigen se20-10 mRNA	AF177227	AAGCTTCTCAACGTATTCAAG AGAAAACCTCTAAATTGCCAG ATATGTTAAAAGACCATTATCC ATGTGTGTCTTCACTGGAGCA GTTAACAGAGTTGGGAGGTGA AACTGATGTTTTGTATGCCGT CCTAACACAGCCCTATGCCCG ATGTACTCAGAGACTGGAACA GCACAAGAGAAATAAAGCAAC AATCAGTAATGGG ( <b>SEQ ID NO: 232</b> )
CTP28D	Homo sapiens upstream binding protein 1 (LBP-1a) (UBP1)	NM_014517	AAGCTTTGGTCAGGCAGGAAT AGGAATGAGTAATTTGGGCTT TGAAATCTCTCCCAGAAGACA AACTACTTCGATGGGAAAAAG CTTTGACATTTTGTGTTTTATT TGTAGAGGGGGTTATTGGATA CAGAGGAGCCTGGTCTCATAC ATTTTCATCTTCAGTCTGAAAA GATCTGTAATTCTGTAGACCC TGAAGCGGGGGAACCTTTTCTT TCTGCCATCTCCCTTTGCTTTC ATATGAACACCTCTTCTGTACC AATCATTTGGAAAAGAAGTGA GCATATCTCTTGTTTTAAAGT TTTGCTTGNCTGGTTAGCATT CCTTTTGAGCTCAACATATATG GAACAATAAATGTCATTTAATG CTGNGNGCTATTTTGAATTCC TCATCAGGTTTTAGAAAGTGGG GTCAAGAACACTTAAAAGCTC ATTGGACTTTGAAATTATNCCA GCCGCCNTTGACCATTATCTG GCCCCANCAAAGCAGGTTAAAT TATGGCNCCNGCAAATTTGCT TTTTTTTTTAATAGNNGGANGN NTACNTTTCAGNTTAATAAATG TTTTCCGATGGTTTGC ( <b>SEQ ID NO: 233</b> )

CTP30E	Homo sapiens BAC clone CTB-60N22 from 7q21	AC003083	GGTCAAAGTGTATAGTTTTGA CTTACCCCTCCCAGATCCTGA ATGTCCTTTTGGAGTTTTTCAG ATACGGTGACAGAAGGTAAGT CAATGTAAAATATTTTTCCCA GAGTGGCTTATATTTGTATTTT TCTGGTTTGTATCAGTTTTCA TAGATTTTCATAGATCTGTTTTT TTCATTTTTGACTTGGATTCCA CCTGTTGTTTAAAAAAGTAGA ATCAGATCATGATTTATGTGGA CAGAAAATTTCTCTTTTAAAAA TACTTTTTATACAGTCATCATT TCATAGAGGGGGAAAAAATCT TTATAATACCACCAATTAAACA CTCAATAGCATTTTACTGTATT TCTTCGTAGTATCACTTAGGAT AAAACCAGAATACCATATTTGT TTAACAGATCCCATACTGTAA AATAATCATCGTTCACAGCCTA CAGTCGAAGCTT ( <b>SEQ ID NO: 234</b> )
CTP31A	No significant match		GGGGCAGATAAAAACTTAA TGTAATAATTTACCTCTCAGAA AAATTTCCAGTATGCTATACG GTATCACTAACTATAGTCACTA TAGTATACAGTAGATCCCTAG GATTTATTATGATGTACAGTC GAAGCTT ( <b>SEQ ID NO: 235</b> )
CTP32D	cDNA FLJ14795 fis, clone NT2RP4001219	AK027701	AAGCTTGATTGCCAGAGTTAC GAAAAGCATCAAAGCATCTTT ATGGTCAGCTTAAATTTGGTA CACTAGATTGTACAATTCATGA GGGACTCTGTAACATGTATAA CATTCAAGGCTTATCCAACAATA GTGGTGTTCAACCAGTCCAAC GTTTCATGAATACGAAGGCCAT CACTCTGCTGAACAGATCTTG GAATTCATAGAGGACCTTATG AATCCTTCAGTGATCTCCCTG ACACCCACCACTTTCAATGAA CTGGTTAAACAGAGAAAACAT GACCAAGTCTGGATGGTTGAT TTCTATTCTCCATGGTGTCATC CATGTCAAGTCCTAATGCCAG AATGGAAAAGAATGGCCCGGA CATTAACCTGGACTGATCAATG TGGGCAGCGTAGACTGCCAA CAGTATCATTCTTTTTGTGCCC AAGAAAATGTTCCGAGATCCC TGAGATAAGAATTTACCCCCC ( <b>SEQ ID NO: 236</b> )

CTP34A	Homo sapiens ribosomal protein S29	NM_001032	AAGCTTTGGTCAGGGCTCTCG TTCTTGCCGCGTCTGTTCAA CCGGCACGGTCTGATCCCGG AAATACGGCCTCAACATGTGC CGGCCAGTGTTTCCGTCACTA CGCCAAGGATATAGGCTTCAT TAAGTTGGATTAAGTGAACCTC CTTGAATGGGTCATCCAAGAT ACCTACCTTAACTGCAGATGT CCAAGATACCTACTTTGATGC CAACTCATTGTATATAAAATAA AAATACTCCAATTATGAGTGTT TTAATGTG <b>(SEQ ID NO: 237)</b>
CTP36A	No significant match		CAAGTTTTACCATTGTTTTAAT TATTGAAACAAAATTAACGTAA GTAGAATCATGTGCAACAGTG TCTCTAACATATGGAAGAGGT AAATATGAATTTTATACAATAA GGTATATTATCCACTGTAACAA ATTTCCAATAATTTGGCATTTA TCTTTCACAAAATGTCTCCCAA ATTCTAAGCAAAGTATGCAAAT TGGAGATTAACCTAAACAGG CATAATTATCTTCTTATCCAGT TTTTCTGAAGAGACTGAAGAG TTCAGGTCTGACCAAAGCTT <b>(SEQ ID NO: 238)</b>
CTP37A	Homo sapiens nuclear factor associated with dsRNA NFAR-1	AF167569	CAGATGTGATAAAATCGTTTTTC ATTACTGTCAAAGGCATCAAC CAGATTTGGGAATTTGTTAAAA GGTTAAAAATTCATACAAAACC TGCTGTAAATTAAGACAAAGG TAGATTAAATGCATCATTATC TGTCTCTTAAATAAAGTAATGC TTTCCATAAAAAGCAAAGGTG GGCTTTTGCCTTGATGCTGAC CAAAGCTT <b>(SEQ ID NO: 239)</b>
CTP41B	Homo sapiens mRNA for KIAA1392 protein	AB037813	GGAAGTGTCAAGGATCAGTT CCGTGGCACCCCTCTGACCACA GACTGGGAGCAACACGCATCT GTGGCATTAAAAATGGAATT GGCAACTTCATGACATTGGAA TGCATATCACACTTACAGTGT CTAGACTTTCCTATGTGTGCT CAGTTACAAGTAGTGAAGCAA AAGTATACATATCACCCCTACT GCTATTCGGTTGCTACAGAGC CATAAATGTGAAAAGCAATACT CTGAAATAAAGATTTTTGTTTT TTGCCCTAGCCTACTAAGCTT <b>(SEQ ID NO: 240)</b>

CTP47G	No significant match		AAGCTTGCACCATACTCCTCC TCTACATATGCTCCCAAATTAC CTTCTAAAAAGGCTGTATTAAT TTACTTTTACCAGTAGTATTAT GAGAGTGCCCATGTCCCTTAG CCTTTTAAAATTCATATGAGC AATCTTTAAATCATGTACTAAA TCTTATAGGCAAAGAATAGGG CCTTGCCCCTGCCCTGTT (SEQ ID NO: 241)
CTP50A	No significant match		ATTCCTTTTCCAAGGACCTCTC TTCTATGTGATCACTGAGTAA GTTCACTCACTCCCATCATCT CTAGATTGGAGATTTCCAAATT TATGGCCTTTCCTAACTTTGAA GTCCTTATTTCTAACTGCCTAC TAAGCTT (SEQ ID NO: 242)
CTP51A	Homo sapiens intestinal N- acetylglucosamine-6-O- sulfotransferase	AF219991	ATAAATAGAGATGGGGGTCTT GCTATGTTGCCAGGCTGGTCT TGAACCTTCTGGGATCAAGCAA TCTGCCTGCCTTGGCCTCCTA AAGTGCTGGGATTACAGGTGT GAGTCACTGTGCCTGGCCTCA TATAGTCACTATAACAGCCTAC TAAGCTT (SEQ ID NO: 243)
CTP52B	No significant match		AAGCTTAGTAGGCAATAATAG AGAAGTAGAAATTGAATGTGG AACATTAACCATTAATAATCAT ACTTTTGAATGTGCTGAGGTC ATGAATTGTTTTTACCTTCTTT GTAATTTGTGTTTTTCAGATTT TCTGTAGTTAGCATATATTCTA TAATCAGAAAAAGATGCTTCAA GTTTTTGCAGATTTACAGAA TTTTGTTT (SEQ ID NO: 244)
CTP53A	No significant match		AAACAAAATTCTGTGAAATCTG CAAAAACTTGAAGCATCTTTT TCTGATTATAGAATATCTGCTA ACTACAGAAAATCTGAAAAAC ACAAATTACAAAGAAGATAAAA ACAATTCATGACCTCAGCACA TTCAAAAGTATGATTTTTAATG GTTAATGTTCCACATTCAATTT CTACTTCTCTATTATTGCCTAC TAAGCTT (SEQ ID NO: 245)



CTP58A	No significant match		AATTGTCACGAACAGGGCTGA CTGACACTGCAGTGTGTCCTT GTTTGTGATCCCTGATCTAG GCCTCGGCTTTTCAAACCTGCA GTTGATCAAACCTGGGATATGC TTCGGCTGAATCTGCTCTCTG GTGCTTCTCTTTAATCGTTTTCT TCCTTAAATGGGTTACTTTCTT ACTAGGAAAAAAAAAATGTTT CACCTCTGGAATTAACGTTGA GAAGCTT <b>(SEQ ID NO: 246)</b>
CTP59A	Homo sapiens cyclin D2 (CCND2)	XM_012143	AGGTCAAGGTGAGTTTATTGT CCAAATAGCATAACCTAATTG CATTCAAACCATTTTCAAATC CATCTTTAACTAGTCAGAAAA CAGGTTATTATTTTTTAAATC ACTTAACACTGAACAGATAAG ACCTCTTAAAAGGCAGCTGAC TATATCATGTCACCATCATAGC CAATACAACATTTTGGCATA TTCCTAAAAACCTTTTCGCATA CACTGATCATGCTACTTATCA GCACTTTTAAACATCCTGACCA AAGCTT <b>(SEQ ID NO: 247)</b>
CTP60B	Homo sapiens RNA binding motif, single stranded interacting protein 1 (RBMS1)	XM_016120	ACTAAAATAAACCTGTTCGGG GGGAACAGCTACTAGATGAAT TTAAGGGTTTTATGCACCTTAT AGAACTTATAGCAAAAATAGTT TTAGTTGATTTTATTATAAATA ACGTTTTCAAGAACCTGTGCA AACTGTCAATAATTTCTTAAA GCACAATTGATCAGAAAAATC CATGATTGTTGAGCCTTCACA CCCTTCTTCATGTAAGAACAC CCTTCTGTACATCTCACAGTTA CTTATTAGGTTGAAAGGTATAT GGTGAATGGTCATTAGACGTC TCGACAGCCACCTGCTGCTGA CCAAAGCTT <b>(SEQ ID NO: 248)</b>
CTP61D	prion protein [mink, Genomic, 2446 nt]	S46825	ACATTAAATGCCCAGTGCAAG CCAGGAACATTGCAGAATGCT AAATTTATCTGCTAGGTGATGA TATTGAACGATCTAGACAATAA TTTCACCTTACTTAAATAACAA TGAACAGAATTCTTTTTTTTCC ACTCTGAGTGGATATTTCTGT CATCTCTGACCAAAGCTT <b>(SEQ ID NO: 249)</b>

CTP62A	No significant match	AAGCTTCGACTGTCGCATCAA TGAATGTTTTAAGTAATAACTT TGCTGGTTATCAGCTTGATGG TGCATTAATTTTATGGCTCATT TCCTTTATTTTGACCATTGTCTG GATTCTTCATTTTATATTGGAC GATCCCCAATCGAACGGTACC AATTTTTTCAGCTGTGATTGCG GCATGTTTCAACGCGACCGTT TTTGAAATTTTAAACATTTATT TGGCTGGGTCATGAGTAATTT CACCAGCTATGAAATCGTTTAT GGTGCTTTTGCAGCAGTTCCT ATTTTCTACTTTGGATCTATC TGTCTTGGAAATATCATTTTATT GGGTGTAGAAGTGAGTTATGC ACTCACCGCCTTCCATTCTGG T (SEQ ID NO: 250)
CTP63A	No significant match	AGAATCAAGCCACCAGGTGTT TATTTTTGCACTATAAATAGAG TTCCCTAGTCCCATTTTGTTAC ATAATATATGAGATAACAGAGA ACCTAAAATTCATTTGGTGAAA ATCAAGTGTGTAGTATACCTAA ATACCAATGAGCTAGTAAGAC TTGTAAGGCACTGAAGCTAAG GCTAACAGCAACAGAGTCCTT TATGAAAATAATTTTCAGAACCA CAACGCATTCTCTGATGGTGC ATTCCCCTGGGACAGTCGAAG CTT (SEQ ID NO: 251)
CTP64B	No significant match	CATCGCAGACATTTATTTTAGT TTTGTTAATTTCAAATATTCATT AACCTCTTGTATCAGATTTAAG GCAGAGAAAAGATACACGCCC CTGGTTAACTGAACCGGGGTT TAGATAGTGTAGTCCACCCTG GGTTCCACCAGGGAGACCTCA CCCGAGATGACAGGTCCGGTT GCTGGTGCACAGTCGAAGCTT (SEQ ID NO: 252)

CTP65A	Pig mRNA for endoplasmic-reticulum Ca(2+)-transport ATPase (class 3 non muscle transcript )	X16951	CCATTTAAAATGTTTTATTTTC CTTTTTAAACTAGATTGTGAAG TGCCACTGAAATAGGCAATGT TGGCAAAACAATGTCTGTTAC AATAAAATACATTAGACATTTA AATAAATAACCTTAAAAACTAC ATGGGGGGGACATGAACCCAG TCGATTGAATCTGGAACAATG TTTTCTGCACAAGCGAGAACA GGCATACCTCTTGTTAAGACT GATGTAAACAGAACCATCGGA ACCCTACAGTCGAAGCTT (SEQ ID NO: 253)
CTP67A	clone RP5-1071L10 on chromosome 20	AL133228	CACGTTTTAAACTTTATTTGC ATATTAATAAAATTTGTGCATTC CAATAATTAATAATCATTGTAAC AAAAAATGGCACTCTGATTAA ACTGCATTTTAACAGCCTGCA AGATACCTTGGGCCAGCTTGG TTTTTACTCTAGATCTCACTG TCCTCCCACCCAGCTTCTTCC TTCACCAACATGCAAGTTCTTT TCCTTCCCTGCCAGCCAGCCA GACAGGCAGATGGGAAAGGC AGGCGCCTTCGTTGTGAGTAG TTCTCCATTCTTTGATGTGAAA AGGGGCAGCACAGTCATTAA ACTCGATCCAACCGCTTTGCA TCTTACAAAGTTAAACAGCTAA AAGAAGTAAATAAGAAGGCA ATGCTTGTGGAATGTACAGTG CATATTGGCGGCGCACGCCTC ATTACGATTGCGCTACTAAGC TT (SEQ ID NO: 254)
CTP68F	Oryctolagus cuniculus New Zealand white elongation factor 1 alpha Rabefla2)	U09823	CTCATTAACCTTTTGTTTTAAT GGGTCTCAAAATTCTGTGACA GATTTTTGGTCAAGTTGTTTCC ATTAAAAAGTACTGATTTTAAA AACTAATAACTTAAACTGCCA CACACGCACAAAAA AAAAACAAATGGTCCACAAAA CATTCTCCTTTCCTTCTGAAGG TTTTACGATGCATTGTTATCAT TAGCCAGTCTTTTACTATTTAA CTTAAATGGCCAATTGACACA AACAGTTCTGAGACCGTTCTT CCACCACTGATTAAGACTGGG GTGGCAGGTATTAGGGATAAT ATTCATTTAGCCTACTAAGCTT (SEQ ID NO: 255)

CTP70A	No significant match		AAGCTTAGTAGGCACGCAATA AATAGGAGAATGAATCAGAGT CCTCCAACGCGTCCTCCCTAA TGTCCCTTTGAGCTGCCTCCT CTTCCACTCTGCCTCAGCTTG TCCATGTCACTTTCGCTCCAGA GCAGCCGCAAGAGCATCTTAA CACCTTGTGGCCTGAACTCTC TCCCATCCTCCACTGTACAGT GATATGACTGAAACCTCATTTA ACCTTTTAGAACTACCAGGAG GAGGTTCCCAAGGATCCCAG G ( <b>SEQ ID NO: 256</b> )
CTP71A	Canis familiaris caveolin-1 mRNA	U47060	CACTGAATCTCAATCAGGAAA CTCTTAATGCACGGCACAAC GCCCAGATGTGCAGGAAAGAA AGAATGGCAAAGTAAATGCC CATATGAGTGCCATTGGGATG CCAAAGAGGGCAGACAGCAA GCGGTAAAACCAGTATTTTGT CACAGTGAAGGTGGTGAAGCT GGCCTTCCAGATGCCATCAAA ACTGTGTGTTCTTCTGTTCT GCAATCACATCTTCAAAATCAA TCTTGACCACGTCGTCGTTGA GAAGCTT ( <b>SEQ ID NO: 257</b> )
CTP72B	No significant match		CCATTTTTGCTCTTAAAGAGCA TCTTAAGTGAGAGATCATGAC AATCTTTGGCCACTCCAGGTT TTCTCATCTACTACATGATCTG TTCCCAACAATAAGCCATTGA AATTAAAGGTCTCCAGAAGTTT TATCTGGGGTCTGTGATTGAA AAGAAGGAAAATGAGATGAGA GACTGCCTACTAAGCTT ( <b>SEQ ID NO: 258</b> )
CTP73A	Homo sapiens chromosome 11 clone RP11-546N8 map 11q	AC026201	CAAGCCCATCAATTAGTGTTT TTTTATAGACATTACACACAA CACATATATAGTACACAAAC ACAAGATTCAACACTTGTAAG ATTTTTATTTGCCAGTTTCTT AATTGGATTACTGGCATCAGG GTGGAAACTTTAGAGGAAGAG AGCCAGGTAGCATGCATTTCT AGGGCCTACTAAGCTT ( <b>SEQ ID NO: 259</b> )

CTP73B	No significant match	CCCATAAGAAACATCTTTAAAA CATTGAGAATACTCAGGATAAT CAAGGCTAATATTCCTATAAAT TCCTTACGTGTATTATGTACAT TCAGAAAAGTGTAATTACTCA AATATTATACTCAAACCCCTT ATAGTCTGCTAACTTGCATGTA GAAACATCTGAAGTAACATGC TGCCTACTAAGCTT ( <b>SEQ ID NO: 260</b> )
CTP74A	No significant match	AAGCTTAGTAGGCATCAATTG GATCCTTTCCTATGTTGAAATG GAAGAATTAATGAGCTTACATT AATTAGTATTGTAATGTGTAAA GGAAGCCCAGCAAAATTTTTT GAAAACCTTGATGATCCCAACG TATTTACCATTGTATGTTAAAG CAAAATAAATCACCATTTTTTT A ( <b>SEQ ID NO: 261</b> )
CTP75C	No significant match	AAGCTTCTCAACGGCCTCCAC CTCCTTTCTGCCCTCACAGCC TCCTGGCTCTGGCCAAAAAG TGATTCATTTGTAAATTATCAT GGTTTTCTGCATTAAATGGC CATTTCTGG ( <b>SEQ ID NO: 262</b> )
CTP76B	No significant match	AAGCTTTTACCGCCATCTTGG CTCCTGTGGAGGCCTGCTGG GACCAGGACTCCTAAAGCGAC GANTTTTTNTGGAAGGCTTTG GTCCAAGGCCATTTTTGCCGG CTATAAACGGGGTCTCCGGAA CCAAAGGGAGCACACAGCTCT TCTTAAAATTGAAGGTGTTTAC GCCCGAGATGAAACAGAATTC TATTTGGGCAAGAGATGCGCT TATGTATATAAAGCAAAAGAAC AACACAGTCACTCCTGGCGGC AAACCAAACAAAACCAGNAGT CATCTGGGGAAAAGTAACTCT GGGCCCATGGAAACAAGTGG CATGNGTTCCGTGCCAAATTC CGAAGCAATNTTCCTGCTAAT GCCATTGGACACAGAATCCGA GTGATGCTGTACCCCTCANAG GATTTAAACTAACGAANAAN CAATAAATAAATGTGGATTTGC GNTCTTNGG ( <b>SEQ ID NO: 263</b> )

CTP77D	No significant match		CAATTGGTTTAGTTTTATTTCA AAATTGTACAAAATGGCCATAA GCGGCTATAAAAAATTTTCGTTT TCGGAACACGTGGAAATTCAG AAAGAACAACAAAGCAGGTTA TCATTTACAGTGTAATGGAAA AGCTCTCTCTGAGGCAGGAAT CACAACTCTTCCTTCTTCTTCC CCAGTCTCTCGTGGTCTCCTT CCCGGAGCGCTCGAATGAAA CTGGTAAACCCCGATTCCGTC CGATCGC <b>(SEQ ID NO: 264)</b>
CTP78B	Homo sapiens SON DNA binding protein (SON	XM_009738	CGATGTTGAGATCCAGATGAC ACAGGAAATTCTTTTGTTAATG TTACCTGGCTTTTTGGTGGAG TTGGCTTTGCTGCAGCAATAT TCAGATTGAAAAAATGGGTTT GGGTTCACTGAGTTTAAAGGG ATGATGATAAAAAGGAGGTTT TTCTTCCTCTTCATCCCGAAAC ATGAGGCTTATTCATTATTACA TCATCATCTTCTTTACTCTGTG CGATCTGTTTGCATTTCTCAAG TTAGTTCTTCTATAGTNGCTCC TCCTGATTTTTTAGCAACTTTC TCTTCTATTGTGGGTGGAGGT GCACGCTTTTAGGTTTGGCGG GTAAAAGCTT <b>(SEQ ID NO: 265)</b>
CTP79B	No significant match		CATATATATTCTTTTTATTTCT TGTATACCTTCCCAAAACAGA GACATTCAACAGTAGTTAGAA TGGCCATCTCCCAACATTTTAA AAAAACTGCACCCCCCAATGG GTGAACAAAGTAAAGAGTAGT AACCTAGAGTTCAGCTGAGTA AGCCACTGTGGAGCCTTAAGT GGTGAGGTCTTCCAATTTTCA AGTGATGTGTCTTCAACTTGTA TCATCATTTTAGCGGTAAAAG CTT <b>(SEQ ID NO: 266)</b>
CTP80A	Homo sapiens WDR4 gene for WD repeat protein	AB039887	CGCCGGCCAGAAAGCGTAATA TTCTTTAAAGGAACCTTAACAA AACTTTACACTTAATAATGTAA ATCTCACCATGTTCTAGTCAA AAATTTACTACACAGACTCAGT AGCGGTAAAAGCTT <b>(SEQ ID NO: 267)</b>

CTP81A	No significant match		CCAAAGAAGTGTTTATTAACAT TTGGGGCCTCAGCGGGGCCA GAGAGGAAGTGGGTGCTAGA GGCTCCTGAGGCTCAGGGCA AGGCCTGCAAGACAGATCCCA TTGCTCAGGAGGCAGCCCAG ATTGCAAATGGAAGACAGGCC ATGGTAGCGGTAAAAGCTT (SEQ ID NO: 268)
CTP85D	Homo sapiens Rho-associated, coiled-coil containing protein kinase 1 (ROCK 1)	XM_008814	AAGCTTAACGAGGAGACAGAG GTCATGATTCTGAGATGATTG GAGACCTTCAAGCTCGAATTA CATCCTTACAAGAGGAGGTGA AGCATCTCAAACATAATCTTGA AAGAGTGGAGGGAGAAAGGA AAGAAGCTCAGGACTTGCTTA ATCACTCGGAAAAGGAAAAGA ATAATTTAGAGATAGATTTAAA CTATAAGCTTAAATCATTACAA CAACGGCTAGAACAAGAGGTG AATGAACATAAAGTAACCAAA GCTCGTTTAACTGACAAACAT CAATCTATTGAAGAAGCAAAG TCTGTTGCAATGTGTG (SEQ ID NO: 269)
CTP86F	Homo sapiens chromodomain helicase DNA binding protein 3 (CHD3)	NM_001272	AAGCTTAACGAGGACCCAAGA AGCAGAAGGAGAACAAGCCA GGAAAACCCCGAAAACGCAAG AAGCTTGACAGTGAGGAGGAA TTTGGCTCTGAGCGAGATGAG TACCGGGAGAAGTCAGAGAGT GGAGGCAGCGAATATGGAAC GGACCAGGTCGGAAACGGAG GCGGAAGCACAGGG (SEQ ID NO: 270)
CTP87B	Homo sapiens tetratricopeptide repeat domain 3 (TTC3)	XM_009760	AAGCTTAACGAGGCATGTGAA AATTATGAGCAGAGAAAAC AAGGGCTCAGAAGAGACCAG GGATCTGGAAGAAAAATTGAA AAGGAACCTTAGAAGAAACAA GATCTCAAAGACAGAATTAGA TTGGTTCCTTGAAGACTTGGA AAAGGAAATCAAGAAATGGCA ACAGGAG (SEQ ID NO: 271)

CTP88A	Rattus norvegicus ribosomal protein L31 (Rpl31	NM_022506	AAGCTTAACGAGGATGAAGAT TCACCAAACAAGCTCTACACG CTGGTTACCTACGTACCTGTC ACCACTCTCAAAAATCTACAG ACTGTTAATGTGGATGAGAAC TAATCGCTGATTGTCAAATAAA GGTATAAACTGCTCCATG (SEQ ID NO: 272)
CTP89B	Homo sapiens genomic DNA, chromosome 8q23, clone: KB1935H12	AP003473	CTAAAGGGCCAGATAGTAGCT GTGGGCTGGGGTCTCAAACCT GTGTTGCCCACTACTCAACTC TGCCATTGTAATGTGAAAGTA GTCACAGACAAAATATAAAGA AATGAGTGTGACTGTGTTCCA ATAAACTTTATTTACAAAAGC ATTCAGTGGGCTGGATTTGGC TTTTGGGCCATAATTAATCCC CTCTGGTAAAATAATCACTATT Ttagctggatcatgagtacgt GGAAGCTT (SEQ ID NO: 273)
CTP90A	Homo sapiens clone 24800	AF070622	ACAGGTTTCATCTGAATACATA TTTATTAGATAAATATTAGAGG TTGTCACATCATCTAACTACAT ACAGCTTTGCAAGACTAGAAA TCACAATTAGTTTTTTGACCAG TTTAAAGTATGAAATGATTGCA TTGTACATACGATGTACAAAG ACGATGATGGTTTCTGTGGGA GTTACTTCAGGCTGCACTGGT GGGTGTGTTTATGTGTGTACG TGGAAGCTT (SEQ ID NO: 274)
CTP92A	No significant match		GCACTAAATTCAAACCAATGA CCTCCCATGTTCTAATTCTGAT TGTTTAATCCAAGTGGGAGGG TAAACGGGAGACTCTTTGGCC TGTCAGTGACAAAATGGTTTG TAAAAAAGAAAAATAAATACG ATATACAAGTAAGTATAACTAG CACTCAAGCTT (SEQ ID NO: 275)
CTP92C	Human DNA sequence from clone RP4-580N22 on chromosome 1q42.2-44	AL133286	GGGGTGTGGAAGAGCCTTGTT TTGTCATATTACCAGAGTTGGT TTTCTGGTTCCTTCTCATTTGG GTAGGCTCTGTCAGAGAGAAG GTCTAGGGCTGAAGGCTGTTG TTCAGATTCTTTGTCCCAAGT GGTGTTCCTTGTATGTAGCAC TCAAGCTT (SEQ ID NO: 276)



CTP93F	clone RP1-211D12 on chromosome 20q12-13.2	Z93016	AAGCTTGAGTGCTGTTGCTGA TGTAACAATAAAAAATGTGAAG TTTGTAGCTTTAACTTTTTGTA ATAAAAACTAATAACACTGGCT TAAGTGCTGACTTGAAATGCT ATTTTATAAAGTTTGGATGTAA ATAATCAATCGAGGTCAGCAG TTTGTATATGTAGGAGACATA GCTTCCTCCCTGCACCCCCCA TTTTTTTAAAATTTGAGGTGCT TCCTGTGTGTTTTTATGTTAGA ATTGTTCTCCCTCCTTCCTACA CGTGGTCACTTTGTTTTAAAT AACTGTCCTTTGG ( <b><u>SEQ ID NO: 277</u></b> )
CTP94B	Homo sapiens clathrin, heavy polypeptide (Hc) (CLTC)	NM_008305	AAGCTTGAGTGCTGTATCCTG TGCTTTTTCTGTGGGACCATT CCATTCAGGAGCAAAGAGCAC CATGATTCCAATCTTGTGTGT GTTTACTAACCCTTCCCTGAG GTTTGTGTATGTTGGATATTGT GGTGTTTTAGATCACTGAGTG TACAGAAGAGAGAAATTCAAA CAAAATATTGCTGTTCTTCAGT TTTGTTTGTGGAATTTGAAATT ACTCAAATTTAAATAAATTAC TGGACTGTGG ( <b><u>SEQ ID NO: 278</u></b> )
CTP99A	No significant match		AGCATATGTAAGATCTCTGGC TTGTAGAAGACAAGTTTATATA GCACTTAAAAAACCATTGTTA CATTAAATGTCGAACTCAAAT TTTAAAGAGTATAGAGAACTAC AAAATGGAAAAAGGAAGCAGA TATACGCTTTATGAGGAAATTG TGTTAATGATCTCTCCTCTAAA AAAGGACTCTTCCCTATTATCA TAATGACCACACTGCCCGTCC TTAAAACCACTGGTCGCTGAC ATTATGCCGAAGCTT ( <b><u>SEQ ID NO: 279</u></b> )

CTP100A	COX15 (yeast) homolog, cytochrome c oxidase assembly protein, clone MGC:8634	BC002382	AACATATAAAAACATTTATTCA CTAGGAATAATTGTGGCAGAC ACAATCCAGTGAAAGCAGCTC AATCCTGCTCAGTTAGGCTAG TTGAAGAACCATACTTTAAAAA AAGAAAGGAAGACAGGCCAAAC AAGTGTTTTACAGGAGCAACA GACTTCAAGGTCACCCCCACA AGACACCCTGCACAGCAGGG ACGGGGACAGGGAGGATGAC CTCTTAGGGCCTGTGCCTTCG CAGAGGTGCTCGGCGGATGG GTGTGGTCTTCTTGGGTGTCT CCTCTTCTGTATCTATGCCG AAGCTT ( <b>SEQ ID NO: 280</b> )
CTP103JJ	No significant match		AAGCTTCGGCATAGTTACTGT TTGATTTTAAGTTTTATATAGT TCTTAGTTTTGAAGAAATCCTT CAAGAACAGTTTCTCTAAAGA GCATGTTTTAATTAAATGCTAA TTAATTACCTTTCTTAGTTTTT CAATTTAGTAGGCCACTTTCAA TGTCTATTAAAGTGAAATAAAC CTTCTGAACCTTAAACATTTTTA AATCGATTAAAAATTGTGTCAA AAT ( <b>SEQ ID NO: 281</b> )
CTP104I	No significant match		AAGCTTTTTTTTTTTCAAACG GATTTGTAAAACTGTATTTCT TACACTGTGCACAAACCTTTTA TACTAAATAAATATCAAACCTAC ATTCTTCAGAAAGATGTTTCTA GTATTTTTCTTAGGTCACCTTCC ATATGTAGTATGTACAGTGAG ACCACTTTTTAAAAAGCAATGA CTTAGGCAAACCAACCCTAAT GGTTTGTTAGACCATTTCCCT GTTTTTAATTAAAAATCATAGG GTTGTGCTTCTGTATAAAGTTT GTACATTTCACAATGTAAATA CTGACATT ( <b>SEQ ID NO: 282</b> )

CTP109P	No significant match	<p>           ATGCAACCACACGGAATTTAT            TGAACATTTTTCACAAGTGATTT            CATTAAAGGAAGGCTTTTTTCG            TGCCTATATTGGTTACCATCAC            TTTTGCCCCTATCACAATCTCA            TGGTGTAGTCCTTGCATGTAG            CAGGAACTCAACAAATGTCTG            CTAAATTGACAGATGGAGCCC            CAGACGACCTAAACTTGCAC            TTTAGAAGCACTTACTTCATCC            TGAGCTATTATGAATAAGGAA            CTCAAGTGACTGTTAAAAGCA            TTCTACTGATGAGTTGGTAAT            GTTCTAAAGCAACATATCTCAA            AGGAAAGGATATTGAGTTTGT            CTCCACCATAAAATCCTATTTT            TAAACAAAGGTACTACTTAAAA            ATGGTCTTCCAAAGGCCTCAG            CAGAGGTTCTAAAGAGATGTG            ACAATATGCCGAAGCTT <b>(SEQ ID NO: 283)</b> </p>
CTP110A	No significant match	<p>           AACATATAAAAACATTTATTCA            CTAGGAATAATTGTGGCAGAC            ACAATCCAGTGAAAGCAGCTC            AATCCTGCTCAGTTAGGCTAG            TTGAAGAACCATACTTTAAAAA            AAGAAAGGAAGACAGGCAAAC            AAGTGTTTTACAGGAGCAACA            GACTTCAAGGTCACCCCCACA            AGACACCCTGCACAGCAGGG            ACGGGGACAGGGAGGATGAC            CTCTTAGGGCCTGTGCCTTCG            CAGAGGTGCTCGGCGGATGG            GTGTGGTCTTCTTGGGTGTCT            CCTCTTCTGTCATCTATGCCG            AAGCTT <b>(SEQ ID NO: 284)</b> </p>
CTP111A	No significant match	<p>           AAGCTTCGGCATAAACGATCC            ATTCTCCTCGGCCTCCCAAAG            TGCTAAGGTTCCAGGCGTGAA            CCACCATGCCCAGCCTGTTCT            TTTTTTTATCTCTAGGTGGTGC            TCTCCAGCTGTAGTAGAAATA            GCATTTGTATTGGATCTATTTT            TTTAAATAGGGACTAAATACAG            ACCATTTTGTAGAGTGAAATG            CCAAACAAGAACGAGATTTTT            CTCTTGGCT <b>(SEQ ID NO: 285)</b> </p>

CTP112B	Bos taurus peroxiredoxin 1 mRNA	AF305561	CTCAGTTCAAGTTTAATAGAAA CAACAAAAGATCAAAAGTGAT GCCTTGCTACTACTGTACATAT CAGTTGGCCTGCCCCATAGCA CACCTCAGACCATCCTCTCCA GAGGAAGAAAGGCTGGCCTC CCCAACCCCTGCAGGAAAGG GCGGTCTTGTCCCATACCACA TACCACATCTGCAGAGTCTAA AGTCTTGTTATAAGCATGACAA TAGTACAAAAAAGATTCTGTT TTCATGGATCCCCACTACAG CCCGGACCTAAAATGGCGAG GCGCTCACTTCTGCTTAGAGA AATATTCTTTGCTCTTCTGGAC ATCAGGCTTGATGGTATCACT GCCAGGCTTCCAGCCAGCTG GGCACACTTCCCCATGCTTGT CAGTAAACTGGAAGGCCTGAA CCAGTCGCAGTGTCTCATCCA CAGAGCGACCAACAGGAAGG TCGTTTACAGTGATATGCCGA AGCTT (SEQ ID NO: 286)
CTP113A	Bos taurus ribosomal protein L30 mRNA	AF063243	CTAGTTAGAGTCAGATGTTTAT TTAAAAATCTGATCCACTAAAA CTTAGCGTTTTCCACCAACTC GGGGTGCGGAAACCTTCACA GGCTTCACAATCTTTTGCTTAG GTGCTGCCTTTGTGGGAGCCT TAGCAGCAGCCATTGCTGTCT TTTTAGATGCTTGCTTAGCCTT TTTTGCTTCCTTGGCAGCCCT GATGGCCTGTTCTCGTTGAGC CTTCCTAACTTCAGGTTTCTGA TTCCTCTTAGCCATTATATCAG CAAGAGATGCCCCAGTGATGG CCCTCTGGAATTTGACTGCAC GGCGGGTTCTTTTCTTCTGAA TTTCTTCCGACTGTCCCTTTT GTGCTTTCTTCTGTAGAGGAC AGTCCAGTTGATATGCCGAAG CTT (SEQ ID NO: 287)

CTP115B	Homo sapiens chromosome 17, clone hRPK.227_G_15	AC005899	CTAAGGTGATATAGAAGTGG CTAAGGGAGAGCCAAAGTTGG CAATCCCATTAAATCTTACAAC TCCTAAATTATGGCAATCACAA TGCCTGCCTGAATGAATATAG CAAGTCCTAAAGGATGTCTTC TGTGAGGGCAGATGGAAGTTT ACTTCAACTCAACTCCATCTAC TATTTAAGGGAAGGATAAGTC AAAGTAAGAGTTAATTATTTCA ACATGGTTTGTTCATTTCATGA TTTAACCACACTATGGACCCC AGAAGCAGTTAGGTAAAAGGG ATTTTCTAGAAGCTTAATTATG CCGAAGCTT (SEQ ID NO: 288)
CTP116A	No significant match		AAAAGAGCATACTTATCAGTT GAATGGGGATAGAGGTTTTAG ATATTTTCCAAAATATTTATAAA ACACTTCATTGTTGAGAAATCA CTTACAGAATGGTGGCTATCA AACAAATAATTATAAATTTTTAA AGCACAAGTCACATGTTTTGT AACTCCTGTGTGAATTTATTTT AGCTGTGACATTTAATTGAAAA CATCAGATATGTTTTGAAAA GTCTTAATTTGAGAACAACCTGA AGGAAGTTAATCCAGAATCTA TATGTAGTTAGCTATTAATGAT GATGCTTTATTGACAGTATATT GCTAATATATTTCTTCATGAAA TCTGAAGTTAAATAGTTTCGTT GTGGAATAGTGTCACTGTAAC ATTTCCCTTACGAAGTTCAATA AACCAGCTTTGCCATAAAAAA AAAAGCTT (SEQ ID NO: 289)
CTP117B	Homo sapiens similar to J KAPPA-RECOMBINATION SIGNAL BINDING PROTEIN (RBP-J KAPPA) (M. musculus) (LOC82995),	XM_017740	AAGCTTTTTTTTTTAAAGCTGA TGTCTTATGACTTTTTATGAGT CGAAATTGTTTTGATTTCAAGCA AGTCAAATCTTGTAAGGCC GCGTATTTTTTTTAAAGATTATA TGAAGTCTGTGCAAAAGCTTT AAAAAGAAATGCCTCTGCCTT GCCTGCAATACATGCAATGTA CGTAACTTCGTCTCTGTCCT CAGACACTGTCCGTATTTACTT CCTTGTTTTCTTTTCTTAAT (SEQ ID NO: 290)

CTP119J	Homo sapiens SPR-2 mRNA for GT box binding protein	X68560 S52144	CAAAAGAAAAAATAGTGTTT TATTAACCTACCACACTGTTATA ATACACTTTAAACGTACAATAA GGTAGCCTTTAAATTTGAGGT GGTCTTAAGAATAACAAATGA ACAGAATTCCAAATTTTTGAAA TAGGTGAACTGCTGTAGTTAT AGGTATACATTTAGGAAAATTG TATAGCTTTTACAAGACCAGC AATGAAACTTTATTTTGTACAT TTTTTTAATAATTGAAAATATAA ACAATAATTAATAATAAAAGA AAATACAGCATAATAAAAAACA TACATTTCTCAATTAAATGTAC TGGATACATATAAATTTAAAGG GAAGAAGCAAAAAAGGAAAAT GGTTGATATTTAAGTGCAGAC TGACTACCTAGACGAAAAAAA AAAAGCTT (SEQ ID NO: 291)
CTP121D	Human ribosomal protein L23a	U43701	AAGCTTCATTCCGACGACCCA AGACCCTGCGTCTCCGAAGG CAGCCNAAATATCCTCGAAAG AGCGCCCCCAGGAGAAACAA GCTTGATCACTATGCCATCAT CAAGTTCCCCTTAACACTGA GTCAGCCATGAAGAAAATAGA AGACAACAACACACTTGTGTT CATTGTGGATGTCAAGGCCAA TAAGCACCCAGATCAACACAGGC TGTGAAGAAGCTCTATGACAT TGATGTGGCCAAGGTCAACAC CTTGATCAGGCCTGATGGAGA GAAGAAAGCATATGTTGACT GGCTCCTGACTATGATGCTTT GGATGTTGCCAACAAAATTGG GATCATCTAAACTGAGTCCAG CCGGCTATAAATCTAAATATAA ATTTTTTCACCAT (SEQ ID NO: 292)

CTP122I	Human mRNA for KIAA0033 gene	D26067	AAGCTTTTTTTTTTTGGGACTG CTTTTGATTAATGCAGTTATCC AATTTAAGTGTTTTACTTTAA CTCAAAGTAAAAAGAAATTCTC ACATGGTAACTACTCTATTTAA ATGGTCCTGGAAACATTAAAC AGCTTTCTGCTGCTTGCTTAAT GGTAATACCTTTGATTTCTTGA TTCTAGGACATAGCTGATTTAT TAGGTAAAGTACTCTGTCAATT TTACCTTCACCCAAGACTGTC ATGTTTAAAATACTTTAGCTGT GGGAGAAATCCTTGTCTGTTT TTATTGTGAGAGGAATGGTCA TCCTCAAAGTCTGTTTCTACTA CATAATGTGGACTAATTATTTT TTCTATCACAGTATTAACAAAT GGATTTATTGTAAATACAAAGA AGATATTAATATACTATTCTTA TGTC <b>(SEQ ID NO: 293)</b>
CTP124B	No significant match		ATGGCAAAGCTGGTTTATTGA ACTTCGTAAGGGAAATGTTAC AGTGACACTATTCCACAACGA AATTATTTAACTTCAGATTTCA TGAAGAAATATATTAGCAATAT ACTGTCAATAAAGCATCATCAT TAATAGCTAACTACATATAGAT TCTGGATTAACCTTCCTTCAGTT GTTCTCAAATTAAGACTTTTCC AAAACATATCTGATGTTTTCAA TTAAATGTCACAGCTAAAATAA ATTCACACAGGAGTTACAAAA CATGTGACTTGTGCTTTAAAAA TTTATAATTATTTGTTTGATAG CCACCATTCTGTAAGTGATTTT TCAACAATGAAGTGTTTTATAA ATATTTTGGAAAATATCTAAAA CCTCTATCCCCATTCAACTGAT AAGTATGCTCTTTTAAAAAAA AAAGCTT <b>(SEQ ID NO: 294)</b>

CTP126A	No significant match		AAAGAAAGTAATTATGGAAC TA GATTTTTAACATTGTAAAATAC TAAATGATCCTTCAGTTGTAAG TTGATATATATTTGTAACCTTT GTGAAATTGTATCCTTATGAAA ATACCACTTTTGTGGAAGAGA GAATCCAACATATGTAATATTTA ATTAAAACAATCCATGTTTACC CTATCCCTGCTCAATTAACA GTGTATATAGGTCTAATAATAG CTCTGGAGCAACTTTTATCAT GAGTCAAATATATTAAACACAT TGATGTCTTCTTGGTATATCTG AAAACAAGAGGTAGAAGTCCT GTTGAGAGTCTTTAAAATAAAC TATTTTTACAAATGTAAAAAAA AAAAGCTT ( <b>SEQ ID NO: 295</b> )
CTP129A	Homo sapiens, Similar to cadherin 1, type 1, E- cadherin (epithelial), clone MGC:1151	BC007583	AAGCTTCATTCCGACGACCCA AGACCCTGCGTCTCCGAAGG CAGCCGAAATATCCTCGAAAG AGCGCCCCCAGGAGAAACAA GCTTGATCACTATGCCATCAT CAAGTTCCCCTTAECTACTGA GTCAGCCATGAAGAAAATAGA AGACAACAACACACTTGTGTT CATTGTGGATGTCAAGGCCAA TAAGCACCAGATCAAACAGGC TGTGAAGAAGCTCTATGACAT TGATGTGGCCAAGGTCAACAC CTTGATCAGGCCTGATGGAGA GAAGAAAGCATATGTTGACT GGCTCCTGACTATGATGCTTT GGATGTTGCCAACAAAATTGG GATCATCTAACTGAGTCCAG CCGGCTATAAATCTAAATATAA ATTTTTTCACCAT ( <b>SEQ ID NO: 296</b> )
CTP131B	Homo sapiens similar to sperm autoantigenic protein 17	XM_006087	AAGCTTCATTCCGGGGACACA TAGCCAGAGAGGAGGCAAAG AAAATGAAAACAAATAGTCTTC AAAATGAGGAAAAAGAGGAAA ACAAGTGAGGACACTGGTTTT ACCTCCAGGAAACATGAAAAA TAATCCAAATCCATCAACCTTC TTATTAATGTCAATTTCTTCCTG AGGAAGGAAGATTTGATGTTG TGAAATAACATTCGTTACTGTT GTG ( <b>SEQ ID NO: 297</b> )



CTP133B	No significant match		CCAAAAAGAGCCATGCCCAGA GGGAAAGTTGGAAACGAAAGC CAAGTTTTTCATTTAAAAGGAAA CANTAAAGAGGTTAGCCAGAG AAACTTGAACCAAAGAAAAGA CAGCACGCTGTTCAGAATGGT CAATAAGAGCCTAAAACGGTA CCCTCGGAATGAAGCTT ( <b><u>SEQ ID NO: 298</u></b> )
CTP134A	No significant match		CCAAAAAGAGCCATGCCCAGA GGGAAAGTTGGAAACGAAAGC CAAGTTTTTCATTTAAAAGGAAA CATTAAAGAGGTTAGCCAGAG AAACTTGAACCAAAGAAAAGA CAGCACGCTGTTCAGAATGGT CAATAAGAGCCTAAAACGGTA CCCTCGGAATGAAGCTT ( <b><u>SEQ ID NO: 299</u></b> )
CTP135A	Homo sapiens cDNA FLJ11508 fis, clone HEMBA1002162	AK021570	CCATCAAATGTAATTTATTTAA ATAACAATTCAATTGCATGTTA AGTAAACCAGTTGTAGCAATA TAAAAATACAGAATTTTGAGAA AATCTGGCAAATTAACCTGTA TCTAAATGCAGCATATTCTGTG ATACTACGGAATGAAGCTT ( <b><u>SEQ ID NO: 300</u></b> )
CTP143B	No significant match		AAGATTTCAAAGAGTGAGCAA GTGCATTAGCAGGGCAGAGA GAGAGGCAGCAGACTCC CTGCTGAGCTGGGAGCCAACT TGGGACTCGATGCCGGGACC CCAGGATCATTACCCGAAGCT T ( <b><u>SEQ ID NO: 301</u></b> )
CTP144B	No significant match		GGGTAAATCCGTCCAGTTTAC TGTAATATGCCTTTGACAAAC TGGTAACTCATGTCCCATCCC AGTCCCGAGTACTGGACCAG GGAAACTCCAGCCACAGTTGA GGGAAGGCCACCTGTTGGCT CTGGGGCAGCAGGTCATCCA GTGGGCTTCAGGAGTCACCA GGCCTCTGACCAGTTCCTCCC CACCAAGCAGTTTCAGAGTTG TCCGCCAAGTCTATTTACAC CTCTCGTGTATGCCGAAGCTT ( <b><u>SEQ ID NO: 302</u></b> )

CTP145B	No significant match		GGACTGATAATAATAGGATTTT ATTTCTAAAATTTATCTTAGAG CTTCAAAGAGTATAACACACA GATCTTTACCACCACACCCCC CTTGCCTATACAGGAAACAAC CAAGTTGTGAGAACATTTATCA TGCACAGACACATCAGGGCTT GCAGGTGCTACACAGGAATCA CAAATGCTGTTCCACATCATG TCTTCTGTTATGCCGAAGCTT (SEQ ID NO: 303)
CTP148B	Homo sapiens serine- threonine protein kinase (MNBH)	AF108830	AGCATATGTAAGATCTCTGGC TTGTAGAAGACAAGTTTATATA GCACTTAAAAAACCATTTGTTA CATTAAATGTCGAACTCAAAC TTTAAAGAGTATAGAGAACTAC AAAATGGAAAAAGGAAGCAGA TATACGCTTTATGAGGAAATTG TGTTAATGATCTCTCCTCTAAA AAAGGACTCTTCCCTATTATCA TAATGACCACACTGCCCGTCC TTAAACCACTGGTCGCTGAC ATTATGCCGAAGCTT (SEQ ID NO: 304)
CTP149B	No significant match		AGGAAGAATAAAAAACATATAAA AACATTTATTCACTAGGAATAA TTGTGGCAGACACAATCCAGT GAAAGCAGCTCAATCCTGCTC AGTTAGGCTAGTTGAAGAACC ATACTTTAAAAAAGAAAGGAA GACAGGCAAACAAGTGTTTTA CAGGAGCAACAGACTTCAAGG TCACCCCCACAAGACACCCTG CACAGCAGGGACGGGGACAG GGAGGATGACCTCTTAGGGC CTGTGCCTTCGCAGAGGTGCT CGGCGGATGGGTGTGGTCTT CTTGGGTGTCTCCTCTTCTGT CATCTATGCCGAAGCTT (SEQ ID NO: 305)

CTP150A	No significant match		AGCATATGTAAGATCTCTGGC TTGTAGAAGACAAGTTTACATA GCACTTAAAAAACCATTGTTA CATTAAATGTCGAACTCAAAC TTTAAAGAGTATAGAGAACTAC AAAATGGAAAAAGGAAGCAGA TATACGCTTTATGAGGAAATTG TGTTAATGATCTCTCCTCTAAA AAAGGACTCTTCCCTATTATCA TAATGACCACACTGCCCGTCC TTAAACCCTGGTCGCTGAC ATTATGCCGAAGCTT ( <b>SEQ ID NO: 306</b> )
CTP150C	Canis familiaris mitochondrion	CFU96639	AGGATCCTCATCAATAAATAG ATACATACAAGAATAGCCAGA CTACATCAACAAAGTGTCAATA TCATGCAGCGGCTTCAAATCC GAAGTGGTGGTTTGATGTGAA GTGGTAGTATAGCTGTGCGGAG GAAGCACACGATGAGGAATGT AGAGCCAATAATTACGTGTAA TCCGTGAAATCCAGTGGCTAT AAAAAAGGTAGATCCGTATAC CCCATCGGAGATTGTAAAAGA TGTCTCATAGTATGCCGAAGC TT ( <b>SEQ ID NO: 307</b> )
CTP154A	No significant match		AGCATATGTAAGATCTCTGGC TTGTAGAAGACAAGTTTATATA GCACTTAAAAAACCATTGTTA CATTAAATGTCGAACTCAAAC TTTAAAGAGTATAGAGAACTAC AAAATGGAAAAAGGAAGCAGA TATACGCTTTATGAGGAAATTG TGTTAATGATCTCTCCTCTAAA AAAGGACTCTTCCCTATTATCA TAATGACCACACTGCCCGTCC TTAAACCCTGGTCGCTGAC ATTATGCCGAAGCTT ( <b>SEQ ID NO: 308</b> )
CTP156J	Human DNA sequence from clone RP5-975D15 on chromosome 1p31.3-32.2	AL136120	AAGCTTCGGGTAACCACTGCT AATAACTAAAATACTCTAACTT GGAATAATCGACTCCGACGTC TTATTTTTCCAAGTTGCCTTT TCTTTAAACACCTTTTCTGA TTTAATACGGAATAACGGTCTT CTTTTCCACTCGATAACTATGG TGTCTCTTGGGTACTGCTT AAGAAAAGTTGGTTTGGGCCA TTTCG ( <b>SEQ ID NO: 309</b> )

CTP161B	Canis familiaris TCTA gene, AMT gene, DAG1 gene and BSN gene	AJ012166	AAGCTTTTTTTTTTTGAAGATA CAAGTTAGAGTTCAATCAGTA CCAAAGGTAAGGAAAAATTAA CTCTATGTACACAGTCGAGTT TTATCCTGCTTAAAAATTGTCAA GTAGAGAAAAATTCTGAAAATAT TTATGAAAAAGCTATTCTCATG CTGGCAGCAATGGTTAAAAATA AAGATATTTCTTTATTAATAAA AGAAAAAGCCTAAAAACAAC TTAAATAATCAAGTTGCTGTG AAGTGAAAGGGTTTGAAAGTG ATGAAACTGAAGTTAAAAGTTC TCTATATGTGTGTTTTACTTTA AGCAAATTAGACATAGTGAAT AAAATTTGAATTTTCAGACAAA TTATTTGCTTTTTTTTTATTTTA TTTATTTATTCATGAGAGACAC AGAGAGAGAGAGGCAGAGAC ACAGGCAGAGGGAGAAGCAG GCTCCACGCAGGGAGCCCAA TGTGGGACTCGATCTGGGAAC TCCGGGATCAAGCCCTGAGCT GAAGGTAGACACTCAACCGCT GAGCCACCCAGGTGCCCTGA TTTGCTTTTTTAAAGAAGTCTCC CCCTTCC <b>(SEQ ID NO: 310)</b>
CTP164A	No significant match		AAGCTTCGGCATACGGTGTGA GGTTACAGTCCAGTTTTGTGT GCTTTACTACAGGTTTGGTT ACAGGACTTCTGTGCATTGTA AAACATAAACAGCATGGAAAA GGTTAAATACCTGTGTGCAGA TTGTAAGATCTGGTCCGGACT TGCTGTGTATATTGTAACGTTA AGTGAAAAAGAACCCCCCTTT GTATCATAGTCATGCGGTCTT ATGTATGATAAACAGTTGAATA ATTTGTCCTCAGACTCTTTACT ATGCTTTTTTAAATTAAGAAA AATGTAAATATAGTAAAAATCT TCCTATGCAATTAACCTGG <b>(SEQ ID NO: 311)</b>

CTP178B	Homo sapiens mRNA for KIAA1524 protein	AB040957	AATAAGGCTTCATCTAGATTTT TTTCTGTGAACTGAAGTTGGT CAAGGATTGTAGGCAGCAGAA GGCTCACAAAACGGTCAGTTG AGGAACAGTTAGCAGTATCTG CAACATCCTCAAATATTTCTT GAACAACCTCTAAGGCTAGAAG AGAACAGTTTTCTGATCTGTC CAGAGGTTGGTTTGACCAACG CAGTAGAGCCACAGTAGGTTT TAAACATTTAGAACGGCTTCC CAGAATGGTGTGGCCAGATGG AGACTGTTCAAATATCATCTGA GTGAGCACGTGGCGCAGCTG AGTCACTGAACAGAAGGCAAG AAGTAATTCTAAAACCTTTGAA GAAGAATCAGGATCCTTTCCA TTGAGAAGACCTAATACTTGA CTAAGACATGAAGAAAAGTGC TCATACCTGGTAAGCTT (SEQ ID NO: 312)
CTP179K	No significant match		AAGCTTACCAGGTAGAGGGAC TGTTGGAGGTATGGACGCACA CAGGAGGGCCAGGCCAAGGC ACGAGTTTTTCAGTGAAGGGG GTAAAGCATCACAATTTAAAT GTTTGCAATTAACTGGTTTGT TAAATATC (SEQ ID NO: 313)
CTP185C	No significant match		CAGCGAAGAGGCATTAAAGAT TCATGCCATAAGTTTATTTACA AACATGTTGTGTATGTTGAATT CAAGAGATTGATCCATTTTTCA GAGACTGCACCTCTTAAATG TTCCTTTTCACATCTGTTTAGT GGATCAAAAGCTT (SEQ ID NO: 314)
CTP197A	No significant match		ATGGTGTGTGTGTGGGTTCAA ATAGTTTATTCACCTCTGTAGT GGAAAAACAAGGAGAAATAAA ATCTGCTTACAATGGCCAAAA TTTATGGAGAAGCCCTAAAGT TGCTTTCCCCAAATCACAAATC TGATTCAAGAGAAGGAAAAAA ATGATGAAAAACATCTCATCAC ACAAAACCTCAGTGTGGTGTCT CTGATAGTCATCAGCCAGCAG AAGCTT (SEQ ID NO: 315)

CTP201B	Homo sapiens, exostoses (multiple) 1, clone MGC:2129	BC001174	ATCATTTCAAAAATAATCATTT AATGTTCCATAATTAACTGTA CACGACCTAGTCTTGGGACAT AGAAGCCAGTGAGGTGAGTTT GGAGCAGTCCCAGGAGCCAG GAGTCGAGTTTTTCATTGGCCT TTTTTTCTTTTTCTTTTTGTC ATTCTGTTTCATCTAAGATTATT TGGATACTTGGCACAATCTGG CTCTGCTGCTAAGCTT ( <b>SEQ ID NO: 316</b> )
CTP202C	No significant match		AGAAAAAAAAATTGATAATTAGG TGCAGATAGAAAATATGAATTA GAAGAGGTTAATTCAAGTGAT CAGCCTGAAAGTTCAGCTTCA TTAGCTTTGTGGTAAATCCAC CACTTCAGATAGTAACTAAAGT AAATTTTAAATTTTATAAGAAT AAAGTAATCCCTGAAAAGAATT CACTTTTTTCCCAGAAGAAGC TTATAATTAATAAAAAAAAAAGCT T ( <b>SEQ ID NO: 317</b> )
CTP205D	Homo sapiens similar to J KAPPA-RECOMBINATION SIGNAL BINDING PROTEIN	XM_011187	ATTAAGAAAAAGGAAAGCAAG GAAGTAAATACGGACAGTGTC TGAGAACAGAGACGAAGTTAA CGTACATTGCATGTATTGCAG GCAAGGCAGAGGCATTTCTTT TTAAAGCTTTTGCACAGACTTC ATATAATCTTAAAAAAAATACG CGGGCCTTTACAAGATTTGAC TTGCTGAAATCAAAACAATTC CACTCATAAAAAGTCATAAGA CATCAGCTT ( <b>SEQ ID NO: 318</b> )
CTP206A	Homo sapiens fatty acid desaturase 1 (FADS1)	NM_013402	CAGGCTGGTGTATAGGTGAA GATAGGCATCTCTTACAGATG GGGGTGGGGGCTGTTGTTAC TGGTGAAGATAGGCATCTAGC CAGAGCTGCCCAGACTCCTTC AGTGAGTAGATAATGTCGGCG AAGGCTGAGAGCAGGGGCTT GGACTGGTACTCTATGCCATG CTTGGCACACAGGGACTGCAC CAGGGGAGCCACTTTATGGTA ATTGTGTCGAGGCATCGTAAG CTT ( <b>SEQ ID NO: 319</b> )

CTP208B	No significant match		CTAGAGGAAGTGCTTTTTATT TTAGATCAACCAAACATATTTA ATATAAAAACCTTTTAATATAC AAACTGTAATCACAATTGCATC CACGTAGCAGCGAGGGAATG GGGTGTTGCAGGAAGCTT (SEQ ID NO: 320)
CTP215B	No significant match		AAGCTTAGAGGCAGTAAACAG GAGCGTCCCCAAGAAAAAGAG GAAATTCTCTTCTAAGGAGGA GCCACTTAGCAGTGGACCTGA AGAGGCTGCTGGCAACAAGA GCGGCAGCTCCAAGAAAAAGA AAAAGCTCCAGAAGCTATCCC AGGAAGATTAGAATGGACATT TTACCAGGTGGGGCAAACCCA CATGATTCCAAACCCACCCTT ATATCCCAATAAAAAACAAATC ACAGG (SEQ ID NO: 321)
CTP216A	Canis familiaris heat-shock protein (HSP27)	U19368	AGGCAGTTGCTTTGAACTTTAT TTGAGAAAAACAAAAGGTAAA TGTATCAAAAGAGCATACAGG TTAGTGTGCAGGGACGGTCAG TGATGGCTACTGAGGTGAGGA TGTGGGCTAAGCAGGGGCTAA GGCCTTTACTTGGCTCCAGAC TGCTCCGACTTTCCAGCTTCT GGGCCCCCAATCTGGGCACG TGCCTCTAAGCTT (SEQ ID NO: 322)
CTP222D	No significant match		AAGCTTACCAGGTGAAGAGTG GGGTTGTCATGACCTTGGCTA TGACGCCCAGCATTTTCGAGGT GGCTCCCTCTATTCTTTACTTT GGGCATCATAGAAAACGTGTC TCTGGGGGATTAATCTTAGAG AAAAATAAAGCCTTTCTGCTG (SEQ ID NO: 323)
CTP300B	Homo sapiens utrophin (homologous to dystrophin) (UTRN),	NM_007124	CCAAGGTTACCAAGCTTTCA ACAAGCACTGTTCTTCTAATAA TTCCTGCCACAATATATTAATT TCTTGTAGCCTACTCCAACGT TCCTCTGTCCAACGGCACACT GCTGTCCAGCGTTCACCAAGC TT (SEQ ID NO: 324)

CTP304B	Homo sapiens unknown mRNA	XM_002211	AAGCTTAGCAGCACAGCACAC CAACATATACAAACACCGAGT GACTACAGTACATGCCGAGGT AAGAAAAGTACATTCGGGGAG ACTATCACTGACACTCAAGCC ATTTTTATTTCCAATATGTTTTG CTTTCACCTTTCCAGTGCCA AAAAAAAAAAAAACCTAGTCACA AATTGGAGTAAATAAGAATCG GTGCCAGTTGACCT ( <b>SEQ ID NO: 325</b> )
CTP306B	No significant match		AAGCTTCTGCTGGTATGGAAA GCCTTCAAGGAAGAGGGTAAT GAGGGGGAAGAAGTGCTGTG CCAAAGTGACAGCATTCAAGT AGGAATAAAGAAAGGAGCTCA GTGGTAGCAGGATGTTGAGCT TCCAAGAAAATCTGGTGGTGG TGAGAAAGTGGCTGCTGTGCA CTGCAAGGAAACAGAGCGATT AAAGAAAGAGATGTGACAGGG TAGGTGGAAGAGATAGCCAGA AGTTAGAAATGGGTTACACTG AAGAAGTAAATTATTTGATTAA ACAATAAGTAAATATACTGGG GATAACAAAAGCCTGATTTCT CCACTGTCTCAGAAGGGATT GCAAGTATGG ( <b>SEQ ID NO: 326</b> )
CTP308KK	No significant match		AAGCTTTCTCTGGATGAACAG TTAAATGGAACCTGGAAACCT CTTCCTGGGATTATTCCTTAAG CAAGGCAGTGTCAAAGGCAAC CCTCCCAGCAAGACTTCAGAA AACAGCTGGCAGAACTACAGG ATCTGGTGTCTGGTGTGTA ATACTCTCCTCCCTGTTCAAAT GATTCAGAACATGTGCAAAGT GTGCTAGCTTTTCATCATATA CATAACAGCATTATGTATCAAG TTACCCTGTTCAAACAAGGAG CAGGCTTCCTCTTTTGA AATGACATGAAGTGAGAAAA AAATGAGAATAACCNTCNNGG GAATTATAGAGGGTTATAATTC TATCCCNACTATTTCAATAAAA GCCATCACGGG ( <b>SEQ ID NO: 327</b> )



CTP309A	No significant match	AAGCTTTCTCTGGCTTTCCGA AGGTAAACTGTTGCCGAAGT TGCTGCGTTACAAGAGCGTAT CCCAGAAACCATAAGGCTACA ACGCCGAAATTGGGAGCTACA TCAGTTTGAATCGATTCAAGAA GGTCATCGCTCAGGCCGTCC CAATACACTGACCTCAAACCTAT CAGGCTCAAATCTTAGAGTGG GTCAACACAAGCCCACTCAAT GCAGAACAAATCCGAGTCAAA CTGCATGAAAAACACGGTGTG TCCGTGTCTGTTGAAACTCTT CGCAAGTTTTTTCGAGATTCA GGCATGGTCTTCAAACGCACC CGCCACAGCTTG ( <b><u>SEQ ID NO:</u></b> <b><u>328)</u></b>
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Please substitute **Table 8** with **Table 8** amended as follows:

<b>Table 8</b>			
<b>Band #</b>	<b>Genbank Gene Name</b>	<b>Accession</b>	<b>Sequence</b>
CTP1D	No significant match		GACTGAGACCATTATTTCNAGA CACGCAGCTGACCAAGGAGTG AGGGAGGGACCAGGTGTGCA AGCTAATAAATAGAGGAGGGG GAGACTTCCTGGAGCTGTAGC CATTCAGTCTTCATTCTTCTCA GGCATGAAGGCATCTCTTTCT GACCAAAGCTT ( <b>SEQ ID NO: 329</b> )
CTP1G	No significant match		AAGCTTTGGTCAGCAATTATAT TAGTTTGCATTTTAGTGACAGG TGTAAGAGAAAGGCCCTTCT TCCCTTACTGGGACAAATCTA GAAATCTTACACAGATGTGCAA ATAAAGCTCGCGTGGTGTC ( <b>SEQ ID NO: 330</b> )
CTP4B	No significant match		GAGCAGCAGTGAGCAAAACCC ACGAAGTTGTTTTAAGGTTACA GCTATGAATAAACATTGTCCAA ACAATGAAGATTTAGGGCTGA AGAACGAGCGTATGTCTACAG TCGAAGCTT ( <b>SEQ ID NO: 331</b> )
CTP7B	No significant match		CAGGTGCAAGAGGTTTGTGTTG GGAGGTAATCCTAGAAACCAC AGAAGGGGGTGGGGATAGGA GGGATGGCAGGAAAACCACTA AGAACTGTGTTATTGAGAAGG TTATCACTGTGGACAACCTGGC ACAGAATACACTTCAGAGCTG TCGCCCTGAGGGACAATGACG CCAAGGTCTTTTCTCTAAGTC CTGTTTCTTATAGGCCGAGGG TGGCTCCTGGGAGCAGTAACT GCCAACAGTCGAAGCTT ( <b>SEQ ID NO: 332</b> )

CTP8A	No significant match	AAGCTTGATTGCCCATACCTG AGCCATTGATATATTTGAAAAT TATGGCACAAATGGAAGAGAA CCACATTTGAAAAGCTTCCAG CCTTTCAACAGAAGATAACTCT TCTTGTTTTGCAGATTGAGCAG ATAATTTCTTTTGAAGGTGATA GTTTCCTAAATTGGATAAAACC GTGGCTGCCATTATATTCACA GAAAATAAAATGAAAACCTTCAG TTAATTGTGGATTG ( <b>SEQ ID NO: 333</b> )
CTP17G	No significant match	CATATATATTCTTTTTTATTTCT TGTTATACCTTCCCAAAACAGA GACATTCAACAGTAGTTAGAAT GGCCATCTCCCAACATTTTAAA AAAAGTGCACCCCCCAATGGG TGAACAAAGTAAAGAGTAGTAA CCTAGAGTTCAGCTGAGTAAG CCACTGTGGAGCCTTAAGTGG TGAGGTCTTCCAATTTTCAGAGT GATGTGTCTTCAACTTGTATCA TCATTTTAGCGGTAAAAGCTT ( <b>SEQ ID NO: 334</b> )
CTP18B	No significant match	CCAAAGAAGTGTTTATTAACAT TTGGGGCCTCAGCGGGGCCA GAGAGGAAGTGGGTGCTAGA GGCTCCTGAGGCTCAGGGCAA GGCCTGCAAGACAGATCCCAT TGCTCAGGAGGCAGCCAGAT TGCAAATGGAAGACAGG ( <b>SEQ ID NO: 335</b> )
CTP25D	No significant match	AAGCTTGCACCATATATATAAC TCTTGGGCAGAGGGTCTGGCA TACATAAGTAGATACTCAGAAA TATCTGTTGGATTGTGTTGATT TAATTATTTTTGTGTTGCTTCTT TTAAAGATGAGCACTTTCTATT AGATATTTTTTTGATCAAAAAA AAGATATTTTTTTGATCATACA GATTTAAGCAGGATTTTTATTA ATTCGTTTCTCTTCCTGGTTGG ( <b>SEQ ID NO: 336</b> )
CTP31A	No significant match	GGGGCAGATAAAAACACTTAA TGTAATAATTTACCCTCTCAGAA AAATTTCCAGTATGCTATACGG TATCACTAACTATAGTCACTAT AGTATACAGTAGATCCCTAGG ATTTATTCATGATGTACAGTCG AAGCTT ( <b>SEQ ID NO: 337</b> )

CTP36A	No significant match	CAAGTTTTACCATTGTTTTAATT ATTGAAACAAAATTAACGTAAG TAGAATCATGTGCAACAGTGT CTCTAACATATGGAAGAGGTA AATATGAATTTTATACAATAAG GTATATTATCCACTGTAACAAA TTTCCAATAATTTGGCATTAT CTTTCACAAAATGTCTCCCAAA TTCTAAGCAAAGTATGCAAATT GGAGATTAACCTCTAAACAGGC ATAATTATCTTCTTATCCAGTTT TTCTGAAGAGACTGAAGAGTT CAGGTCTGACCAAAGCTT <b>(SEQ ID NO: 338)</b>
CTP47G	No significant match	AAGCTTGCACCATACTCCTCCT CTACATATGCTCCCAAATTACC TTCTAAAAGGCTGTATTAATT TACTTTCACCAGTAGTATTATG AGAGTGCCCATGTCCCTTAGC CTTTTAAAATTCACTATGAGCA ATCTTTAAATCATGTACTAAAT CTTATAGGCAAAGAATAGGGC CTTGCCCCTGCCCTGTT <b>(SEQ ID NO: 339)</b>
CTP50A	No significant match	ATTCCTTTTCCAAGGACCTCTC TTCTATGTGATCACTGAGTAAG TTCAGTCACTCCCATCATCTCT AGATTGGAGATTTCCAAATTTA TGGCCTTTCCTAACTTTGAAGT CCTTATTTCTAACTGCCTACTA AGCTT <b>(SEQ ID NO: 340)</b>
CTP52B	No significant match	AAGCTTAGTAGGCAATAATAGA GAAGTAGAAATTGAATGTGGA ACATTAACCATTAAAAATCATA CTTTTGAATGTGCTGAGGTCAT GAATTGTTTTTACCTTCTTTGT AATTTGTGTTTTTCAGATTTTCT GTAGTTAGCATATATTCTATAA TCAGAAAAAGATGCTTCAAGTT TTTTGCAGATTTACAGAATTT TGTTT <b>(SEQ ID NO: 341)</b>
CTP53A	No significant match	AAACAAAATTCTGTGAAATCTG CAAAAACTTGAAGCATCTTTT TCTGATTATAGAATATCTGCTA ACTACAGAAAATCTGAAAAACA CAAATTACAAAGAAGATAAAAA CAATTCATGACCTCAGCACATT CAAAAGTATGATTTTTAATGGT TAATGTTCCACATTCAATTTCT ACTTCTCTATTATTGCCTACTA AGCTT <b>(SEQ ID NO: 342)</b>

CTP58A	No significant match	AATTGTCACGAACAGGGCTGA CTGACACTGCAGTGTGTCCTT GTTTGTTGATCCCTGATCTAGG CCTCGGCTTTTCAAACAGTGCAG TTGATCAAACAGGGATATGCTT CGGCTGAATCTGCTCTCTGGT GCTTCTCTTTAATCGTTTTCTC CTTAAATGGGTTACTTTCTTAC TAGGAAAAAAAAAATGTTCCAC CTCTGGAATTAACGTTGAGAA GCTT (SEQ ID NO: 343)
CTP62A	No significant match	AAGCTTCGACTGTGCGCATCAA TGAATGTTTTAAGTAATAACTT TGCTGGTTATCAGCTTGATGG TGCATTAATTTTATGGCTCATT TCCTTTATTTTGACCATTGTCG GATTCTTCATTTTATATTGGAC GATCCCCAATCGAACGGTACC AATTTTTTCAGCTGTGATTGCG GCATGTTTCAACGCGACCGTT TTTGAAATTTTAAACATTTTATT TGGCTGGGTCATGAGTAATTT CACCAGCTATGAAATCGTTTAT GGTGCTTTTGCAGCAGTTCCT ATTTTTCTACTTTGGATCTATCT GTCTTGGAATATCATTTTATTG GGTGTAGAAGTGAGTTATGCA CTCACCGCCTTCCATTCTGGT (SEQ ID NO: 344)
CTP63A	No significant match	AGAATCAAGCCACCAGGTGTT TATTTTTGCACTATAAATAGAG TTCCCTAGTCCCATTTTGTAC ATAATATATGAGATAACAGAGA ACCTAAAATTCATTTGGTGAAA ATCAAGTGTGTAGTATACCTAA ATACCAATGAGCTAGTAAGACT TGTAAGGCACTGAAGCTAAGG CTAACAGCAACAGAGTCCTTTA TGAAAATAATTTCAGAACCACA ACGCATTCTCTGATGGTGCATT CCCCTGGGACAGTCGAAGCTT (SEQ ID NO: 345)

CTP64B	No significant match	CATCGCAGACATTTATTTTAGT TTTGTAAATTTCAAATATTCATT AACCTCTTGTATCAGATTTAAG GCAGAGAAAAGATACACGCC CTGGTTAACTGAACCGGGGTT TAGATAGTGTAGTCCACCCTG GGTTCCACCAGGGAGACCTCA CCCGAGATGACAGGTCCGGTT GCTGGTGCACAGTCGAAGCTT (SEQ ID NO: 346)
CTP70A	No significant match	AAGCTTAGTAGGCACGCAATA AATAGGAGAATGAATCAGAGT CCTCCAACGCGTCCTCCCTAA TGTCCCTTTGAGCTGCCTCCT CTTCCACTCTGCCTCAGCTTGT CCATGTCACTTCGCTCCAGAG CAGCCGCAAGAGCATCTTAAC ACCTTGTGGCCTGAACTCTCT CCCATCCTCCACTGTACAGTG ATATGACTGAAACCTCATTTAA CCTTTTAGAACTACCAGGAGG AGGTTCCCAAGGATCCCAGG (SEQ ID NO: 347)
CTP72B	No significant match	CCATTTTGTCTTTAAAGAGCA TCTTAAGTGAGAGATCATGACA ATCTTTGGCCACTCCAGGTTTT CTCATCTACTACATGATCTGTT CCCAACAATAAGCCATTGAAAT TAAAGGTCTCCAGAAGTTTTAT CTGGGGTCTGTGATTGAAAAG AAGGAAAATGAGATGAGAGAC TGCCTACTAAGCTT (SEQ ID NO: 348)
CTP73B	No significant match	CCCATAAGAAACATCTTTAAAA CATTGAGAATACTCAGGATAAT CAAGGCTAATATTCCTATAAAT TCCTTACGTGTATTATGTACAT TCAGAAAAGTGTAATTACTCA AATATTATACTCAAACCCCTT ATAGTCTGCTAACTTGCATGTA GAAACATCTGAAGTAACATGCT GCCTACTAAGCTT (SEQ ID NO: 349)

CTP74A	No significant match	AAGCTTAGTAGGCATCAATTG GATCCTTTCCTATGTTGAAATG GAAGAATTAATGAGCTTACATT AATTAGTATTGTAATGTGTAAA GGAAGCCCAGCAAATTTTTT GAAACTTGATGATCCCAACG TATTTACCATTGTATGTTAAAG CAAATAAATCACCATTTTTTTA (SEQ ID NO: 350)
CTP75C	No significant match	AAGCTTCTCAACGGCCTCCAC CTCCTTCTGCCCTCACAGCC TCCTGGCTCTGGCCCAAAAAG TGATTCATTTGTAAATTATCAT GGTTTTCTGCATTAAATGGCC ATTTCTGG (SEQ ID NO: 351)
CTP76B	No significant match	AAGCTTTTACCGCCATCTTGG CTCCTGTGGAGGCCTGCTGGG ACCAGGACTCCTAAAGCGACG ANTTTTTNTGGAAGGCTTTGGT CCAAGGCCATTTTTGCCGGCT ATAAACGGGGTCTCCGGAACC AAAGGGAGCACACAGCTCTTC TTAAAATTGAAGGTGTTTACGC CCGAGATGAAACAGAATTCTAT TTGGGCAAGAGATGCGCTTAT GTATATAAAGCAAAAGAACAAC ACAGTCACTCCTGGCGGCAAA CCAAACAAAACCAGNAGTCAT CTGGGGAAAAGTAACTCTGGG CCCATGGAAACAAGTGGCATG NGTTCCGTGCCAAATCCGAA GCAATNTTCCTGCTAATGCCAT TGGACACAGAATCCGAGTGAT GCTGTACCCCTCANAGGATTT AAAATAACGAANAANCAATAA ATAAATGTGGATTTGCGNTCTT NGG (SEQ ID NO: 352)
CTP77D	No significant match	CAATTGGTTTAGTTTTATTTCA AAATTGTACAAAATGGCCATAA GCGGCTATAAAAAATTTGTTT TCGGAACACGTGGAAATTCAG AAAGAACAACAAAGCAGGTTA TCATTTACAGTGTAATGGAAA AGCTCTCTCTGAGGCAGGAAT CACAACCTCTCCTTCTTCTTCC CCAGTCTCTCGTGGTCTCCTT CCCGGAGCGCTCGAATGAAAC TGGTAAACCCCGATTCCGTCC GATCGC (SEQ ID NO: 353)

CTP79B	No significant match	CATATATATTCTTTTTTATTTCT TGTTATACCTTCCCAAAACAGA GACATTCAACAGTAGTTAGAAT GGCCATCTCCCAACATTTTAAA AAAAGTGCACCCCCCAATGGG TGAACAAAGTAAAGAGTAGTAA CCTAGAGTTCAGCTGAGTAAG CCACTGTGGAGCCTTAAGTGG TGAGGTCTTCCAATTTTCAAGT GATGTGTCTTCAACTTGTATCA TCATTTTAGCGGTAAAAGCTT <b>(SEQ ID NO: 354)</b>
CTP81A	No significant match	CCAAAGAAGTGTTTATTAACAT TTGGGGCCTCAGCGGGGCCA GAGAGGAAGTGGGTGCTAGA GGCTCCTGAGGCTCAGGGCAA GGCCTGCAAGACAGATCCCAT TGCTCAGGAGGCAGCCCAGAT TGCAAATGGAAGACAGGCCAT GGTAGCGGTAAAAGCTT <b>(SEQ ID NO: 355)</b>
CTP92A	No significant match	GCACTAAATTCAAACCAATGAC CTCCCATGTTCTAATTCTGATT GTTTAATCCAACCTGGGAGGGT AAACGGGAGACTCTTTGGCCT GTCAGTGACAAAATGGTTTGTA AAAAAGAAAAAATAAATACGAT ATACAAGTAAGTATAACTAGCA CTCAAGCTT <b>(SEQ ID NO: 356)</b>
CTP99A	No significant match	AGCATATGTAAGATCTCTGGCT TGTAGAAGACAAGTTTATATAG CACTTAAAAAACCATTGTGTTAC ATTAAATGTGCAACTCAAACCTT TTAAAGAGTATAGAGAACTACA AAATGGAAAAAGGAAGCAGAT ATACGCTTTATGAGGAAATTGT GTTAATGATCTCTCCTCTAAAA AAGGACTCTTCCCTATTATCAT AATGACCACACTGCCCGTCCT TAAACCACTGGTCGCTGACA TTATGCCGAAGCTT <b>(SEQ ID NO: 357)</b>



CTP103JJ	No significant match	AAGCTTCGGCATAGTTACTGTT TGATTTTAAGTTTTATATAGTT CTTAGTTTTGAAGAAATCCTTC AAGAACAGTTTCTCTAAAGAGC ATGTTTTAATTAAATGCTAATTA ATTACCTTCTTAGTTTTCCAAT TTAGTAGGCCACTTTCAATGTC TATTAAAGTGAAATAAACCTTC TGAACCTAAACATTTTTAAATC GATTAATAATTGTGTCAAAAT (SEQ ID NO: 358)
CTP104I	No significant match	AAGCTTTTTTTTTTCAAAACG GATTTGTAAAACTGTATTTCT TACACTGTGCACAAACCTTTTA TACTAAATAAATATCAAACCTAC ATTCTTCAGAAAGATGTTTCTA GTATTTTTCTTAGGTCACCTCC ATATGTAGTATGTACAGTGAGA CCACTTTTTAAAAGCAATGAC TTAGGCAAACCAACCCTAATG GTTTGTAGACCATTTCCCTGT TTTTAATTAAAAATCATAGGGT TGTGCTTCTGTATAAAGTTTGT ACATTTCACAATGTAAATACT GACATT (SEQ ID NO: 359)
CTP109P	No significant match	ATGCAACCACACGGAATTTATT GAACATTTTCAAGTGATTTTC ATTAAAGGAAGGCTTTTTCGTG CCTATATTGGTTACCATCACTT TTGCCCTATCACAATCTCATG GTGTAGTCCTTGCATGTAGCA GGAACCTCAACAAATGTCTGCT AAATTGACAGATGGAGCCCCA GACGACCTAAACCTTGCACTTT AGAAGCACTTACTTCATCCTGA GCTATTATGAATAAGGAACTCA AGTGACTGTTAAAGCATTCTA CTGATGAGTTGGTAATGTTCTA AAGCAACATATCTCAAAGGAAA GGATATTGAGTTTGTCTCCACC ATAAAATCCTATTTTAAACAAA GGTACTACTTAAAAATGGTCTT CCAAAGGCCTCAGCAGAGGTT CTAAAGAGATGTGACAATATG CCGAAGCTT (SEQ ID NO: 360)

CTP110A	No significant match	AACATATAAAAAACATTTATTCA CTAGGAATAATTGTGGCAGAC ACAATCCAGTGAAAGCAGCTC AATCCTGCTCAGTTAGGCTAG TTGAAGAACCATACTTTAAAAA AAGAAAGGAAGACAGGCAAAC AAGTGTTTTACAGGAGCAACA GACTTCAAGGTCACCCCCACA AGACACCCTGCACAGCAGGGA CGGGGACAGGGAGGATGACC TCTTAGGGCCTGTGCCTTCGC AGAGGTGCTCGGCGGATGGG TGTGGTCTTCTTGGGTGTCTC CTCTTCTGTCATCTATGCCGAA GCTT <b>(SEQ ID NO: 361)</b>
CTP111A	No significant match	AAGCTTCGGCATAAACGATCC ATTCTCCTCGGCCTCCCAAAG TGCTAAGGTTCCAGGCGTGAA CCACCATGCCCAGCCTGTTCT TTTTTTTATCTCTAGGTGGTGC TCTCCAGCTGTAGTAGAAATA GCATTTGTATTGGATCTATTTT TTAAATAGGGACTAAATACAG ACCATTTTGTAGAGTGAAATG CCAAACAAGAACGAGATTTTTC TCTTGGCT <b>(SEQ ID NO: 362)</b>
CTP116A	No significant match	AAAAGAGCATACTTATCAGTTG AATGGGGATAGAGGTTTTAGA TATTTTCCAAAATATTTATAAAA CACTTCATTGTTGAGAAATCAC TTACAGAATGGTGGCTATCAAA CAAATAATTATAAATTTTAAAG CACAAGTCACATGTTTTGTAAC TCCTGTGTGAATTTATTTAGC TGTGACATTTAATTGAAAACAT CAGATATGTTTTGGAAAAGTCT TAATTTGAGAACAACCTGAAGGA AGTTAATCCAGAATCTATATGT AGTTAGCTATTAATGATGATGC TTTATTGACAGTATATTGCTAA TATATTTCTTCATGAAATCTGA AGTTAAATAGTTTCGTTGTGGA ATAGTGTCACTGTAACATTTCC CTTACGAAGTTCAATAAACCAG CTTTGCCATAAAAAAAAAAAGCT T <b>(SEQ ID NO: 363)</b>

CTP124B	No significant match	<p>           ATGGCAAAGCTGGTTTATTGAA            CTTGTAAGGGAAATGTTACA            GTGACACTATTCCACAACGAA            ATTATTTAACTTCAGATTTTCAT            GAAGAAATATATTAGCAATATA            CTGTCAATAAAGCATCATCATT            AATAGCTAACTACATATAGATT            CTGGATTAACCTTCCTTCAGTTG            TTCTCAAATTAAGACTTTTCCA            AAACATATCTGATGTTTTCAAT            TAAATGTCACAGCTAAAATAAA            TTCACACAGGAGTTACAAAACA            TGTGACTTGTGCTTTAAAAATT            TATAATTATTTGTTTGATAGCC            ACCATTCTGTAAGTGATTTCTC            AACAATGAAGTGTTTTATAAAT            ATTTTGGAAAATATCTAAAACC            TCTATCCCCATTCAACTGATAA            GTATGCTCTTTTAAAAAAAAAA            AGCTT <b>(SEQ ID NO: 364)</b> </p>
CTP126A	No significant match	<p>           AAAGAAAGTAATTATGGAACATA            GATTTTTAACATTGTAAAATAC            TAAATGATCCTTCAGTTGTAAG            TTGATATATATTTGTAACCTTT            GTGAAATTGTATCCTTATGAAA            ATACCACTTTTGTGGAAGAGA            GAATCCAACATATGTAATATTTA            ATTAACAATCCATGTTTACC            CTATCCCTGCTCAATTAACAG            TGTATATAGGTCTAATAATAGC            TCTGGAGCAACTTTTATCATGA            GTCAAATATATTAAACACATTG            ATGTCTTCTTGGTATATCTGAA            AACAAGAGGTAGAAGTCCTGT            TGAGAGTCTTTAAAATAAACTA            TTTTACAAATGTAAAAAAAAAA            AAGCTT <b>(SEQ ID NO: 365)</b> </p>
CTP133B	No significant match	<p>           CCAAAAAGAGCCATGCCCAGA            GGGAAAGTTGGAAACGAAAGC            CAAGTTTTTCATTTAAAGGAAA            CANTAAAGAGGTTAGCCAGAG            AACTTGAACCAAAGAAAAGA            CAGCACGCTGTTTCAATGGT            CAATAAGAGCCTAAAACGGTA            CCCTCGGAATGAAGCTT <b>(SEQ ID NO: 366)</b> </p>

CTP134A	No significant match	CCAAAAAGAGCCATGCCCAGA GGGAAAGTTGGAAACGAAAGC CAAGTTTTTCATTTAAAAGGAAA CATTAAAGAGGTTAGCCAGAG AAACCTGAACCAAAGAAAAGA CAGCACGCTGTTTCAAGATGGT CAATAAGAGCCTAAAACGGTA CCCTCGGAATGAAGCTT ( <b><u>SEQ ID NO: 367</u></b> )
CTP143B	No significant match	AAGATTTCAAAGAGTGAGCAA GTGCATTAGCAGGGCAGAGAG AGAGGCAGCAGCAGACTCCCT GCTGAGCTGGGAGCCAACTTG GGACTCGATGCCGGGACCCC AGGATCATTACCCGAAGCTT ( <b><u>SEQ ID NO: 368</u></b> )
CTP144B	No significant match	GGGTAAATCCGTCCAGTTTAC TGTAATATGCCTTTGACAAAC TGGTAACTCATGTCCCATCCC AGTCCCGAGTACTGGACCAGG GAAACTCCAGCCACAGTTGAG GGAAGGCCACCTGTTGGCTCT GGGGCAGCAGGTCATCCAGT GGGCTTCAGGAGTCACCAGGC CTCTGACCAGTTCCTCCCCAC CAAGCAGTTTCAGAGTTGTCC GCCAAGTCTATTTACACCTCT CGTGTATGCCGAAGCTT ( <b><u>SEQ ID NO: 369</u></b> )
CTP145B	No significant match	GGAATGATAATAATAGGATTTT ATTTCTAAAATTTATCTTAGAG CTTTCAAAGAGTATAACACACA GATCTTTACCACCACACCCCC CTTGCCTATACAGGAAACAAC CAAGTTGTGAGAACATTTATCA TGCACAGACACATCAGGGCTT GCAGGTGCTACACAGGAATCA CAAATGCTGTTCCACATCATGT CTTCTGTTATGCCGAAGCTT ( <b><u>SEQ ID NO: 370</u></b> )

CTP149B	No significant match	AGGAAGAATAAAAACATATAAA AACATTTATTCACTAGGAATAA TTGTGGCAGACACAATCCAGT GAAAGCAGCTCAATCCTGCTC AGTTAGGCTAGTTGAAGAACC ATACTTTAAAAAAGAAAGGAA GACAGGCAAACAAGTGTTTTA CAGGAGCAACAGACTTCAAGG TCACCCCCACAAGACACCCTG CACAGCAGGGACGGGGACAG GGAGGATGACCTCTTAGGGCC TGTGCCCTTCGCAGAGGTGCTC GGCGGATGGGTGTGGTCTTCT TGGGTGTCTCCTCTTCTGTCT CTATGCCGAAGCTT ( <b><u>SEQ ID</u></b> <b><u>NO: 371)</u></b>
CTP150A	No significant match	AGCATATGTAAGATCTCTGGCT TGTAGAAGACAAGTTTACATAG CACTTAAAAAACCATTTGTTAC ATTAAATGTCTGAACCTCAAACCT TTAAAGAGTATAGAGAACTACA AAATGGAAAAAGGAAGCAGAT ATACGCTTTATGAGGAAATTGT GTTAATGATCTCTCCTCTAAAA AAGGACTCTTCCCTATTATCAT AATGACCACACTGCCCCGTCCT TAAACCACTGGTCGCTGACA TTATGCCGAAGCTT ( <b><u>SEQ ID</u></b> <b><u>NO: 372)</u></b>
CTP154A	No significant match	AGCATATGTAAGATCTCTGGCT TGTAGAAGACAAGTTTATATAG CACTTAAAAAACCATTTGTTAC ATTAAATGTCTGAACCTCAAACCT TTAAAGAGTATAGAGAACTACA AAATGGAAAAAGGAAGCAGAT ATACGCTTTATGAGGAAATTGT GTTAATGATCTCTCCTCTAAAA AAGGACTCTTCCCTATTATCAT AATGACCACACTGCCCCGTCCT TAAACCACTGGTCGCTGACA TTATGCCGAAGCTT ( <b><u>SEQ ID</u></b> <b><u>NO: 373)</u></b>

CTP164A	No significant match	AAGCTTCGGCATACGGTGTGA GGTTACAGTCCAGTTTTGTGT GCTTTACTACACGGTTTGGTTA CAGGACTTCTGTGCATTGTAAA ACATAAACAGCATGGAAAAGG TTAAATACCTGTGTGCAGATTG TAAGATCTGGTCCGGACTTGC TGTGTATATTGTAACGTTAAGT GAAAAAGAACCCCCCTTTGTAT CATAGTCATGCGGTCTTATGTA TGATAAACAGTTGAATAATTTG TCCTCAGACTCTTTACTATGCT TTTTTAAAATTAAGAAAAATGTA AATATAGTAAAAATCTTCCTAT GCAATTAACCTGG (SEQ ID NO: 374)
CTP179K	No significant match	AAGCTTACCAGGTAGAGGGAC TGTTGGAGGTATGGACGCACA CAGGAGGGCCAGGCCAAGGC ACGAGTTTTTCAGTGAAGGGG GTAAAGCATCACAATTTAAAAT GTTTGCAATTAACTGGTTTGT TAAATATC (SEQ ID NO: 375)
CTP185C	No significant match	CAGCGAAGAGGCATTAAAGAT TCATGCCATAAGTTTATTTACA AACATGTTGTGTATGTTGAATT CAAGAGATTGATCCATTTTTCA GAGACTGCACCTCTTAAAATGT TCCTTTTCACATCTGTTTAGTG GATCAAAAGCTT (SEQ ID NO: 376)
CTP197A	No significant match	ATGGTGTGTGTGTGGGTTCAA ATAGTTTATTCACCTCTGTAGT GGAAAAACAAGGAGAAATAAA ATCTGCTTACAATGGCCAAAAT TTATGGAGAAGCCCTAAAGTT GCTTTCCCAAATCACAAATCT GATTCAAGAGAAGGAAAAAAA TGATGAAAACATCTCATCACA CAAACTCAGTGTGGTGTCTC TGATAGTCATCAGCCAGCAGA AGCTT (SEQ ID NO: 377)

CTP202C	No significant match	AGAAAAAAAAATTGATAATTAGG TGCAGATAGAAAATATGAATTA GAAGAGGTTAATTCAAGTGAT CAGCCTGAAAGTTCAGCTTCA TTAGCTTTGTGGTAAATCCACC ACTTCAGATAGTAACTAAAGTA AATTTTAAATTTTATAAGAATAA AGTAATCCCTGAAAAGAATTCA CTTTTTTCCCAGAAGAAGCTTA TAATTAATAAAAAAAAAAGCTT <b>(SEQ ID NO: 378)</b>
CTP208B	No significant match	CTAGAGGAAGTGCTTTTTATTT TTAGATCAACCAACATATTTA ATATAAAACCTTTTAAATATACA AACTGTAATCACAAATTCATCC ACGTAGCAGCGAGGGAATGG GGTGTTCAGGAAGCTT <b>(SEQ ID NO: 379)</b>
CTP215B	No significant match	AAGCTTAGAGGCAGTAAACAG GAGCGTCCCCAAGAAAAGAG GAAATTCTCTTCTAAGGAGGA GCCACTTAGCAGTGGACCTGA AGAGGCTGCTGGCAACAAGAG CGGCAGCTCCAAGAAAAGAA AAAGCTCCAGAAGCTATCCCA GGAAGATTAGAATGGACATTTT ACCAGGTGGGGCAAACCCACA TGATTCCAAACCCACCCTTATA TCCCAATAAAAACAAATTCACA GG <b>(SEQ ID NO: 380)</b>
CTP222D	No significant match	AAGCTTACCAGGTGAAGAGTG GGGTTGTCATGACCTTGGCTA TGACGCCCAGCATTTTCGAGGT GGCTCCCTCTATTCTTTACTTT GGGCATCATAGAAAACGTGTC TCTGGGGGATTAATCTTAGAG AAAAATAAAGCCTTTCTGCTG <b>(SEQ ID NO: 381)</b>

CTP306B	No significant match	AAGCTTCTGCTGGTATGGAAA GCCTTCAAGGAAGAGGGTAAT GAGGGGGAAGAAGTGCTGTG CCAAAGTGACAGCATTCAAGTG AGGAATAAAGAAAGGAGCTCA GTGGTAGCAGGATGTTGAGCT TCCAAGAAAATCTGGTGGTGG TGAGAAAGTGGCTGCTGTGCA CTGCAAGGAAACAGAGCGATT AAAGAAAGAGATGTGACAGGG TAGGTGGAAGAGATAGCCAGA AGTTAGAAATGGGTTACACTG AAGAAGTAAATTATTTGATTAA ACAATAAGTAAATATACTGGGG ATAACAAAAGCCTGATTTCTCC ACTGTCTCAGAAGGGATTTC AAGTATGG ( <b>SEQ ID NO: 382</b> )
CTP308KK	No significant match	AAGCTTTCTCTGGATGAACAGT TAAATGGAACCTGGAAACCTC TTCCTGGGATTATTCCTTAAGC AAGGCAGTGTCAAAGGCAACC CTCCCAGCAAGACTTCAGAAA ACAGCTGGCAGAACTACAGGA TCTGGTGTCTGGTGTGTAAT ACTCTCCTCCCTGTTCAAATGA TTCAGAACATGTGCAAAGTGT GCTAGCTTTTCATCATATACA TAACAGCATTATGTATCAAGTT ACCCTGTTCAAACAAGGAGCA GGCTTCCTCTTTTTGACTTAAA TGACATGAAGTGAGAAAAAAA ATGAGAATAACNTCNGGGA ATTATAGAGGGTTATAATTCTA TCCNACTATTTCAATAAAAGC CATCACGGG ( <b>SEQ ID NO: 383</b> )
CTP309A	No significant match	AAGCTTTCTCTGGCTTTCCGAA GGTAAACTGTTGCCGAAGTT GCTGCGTTACAAGAGCGTATC CCAGAAACCATAAGGCTACAA CGCCGAAATTGGGAGCTACAT CAGTTTGAATCGATTCAAGAAG GTCATCGCTCAGGCCGTCCCA ATACACTGACCTCAAACCTATCA GGCTCAAATCTTAGAGTGGGT CAACACAAGCCCACTCAATGC AGAACAAATCCGAGTCAAAC GCATGAAAAACACGGTGTGTC CGTGTCTGTTGAACTCTTCG CAAGTTTTTGCAGATTTCAGG CATGGTCTTCAAACGCACCCG CCACAGCTTG ( <b>SEQ ID NO: 384</b> )